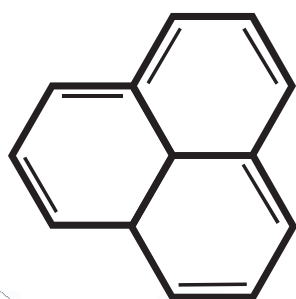


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Vintage Chrom



Pharmaceutical • Environmental • Chemical

Vintage Chrom delivers a comprehensive portfolio of chromatography solutions to meet the evolving needs of today's advanced laboratories. From raw material analysis to final product testing, our specialized product lines offer the precision, reliability, and versatility required for confident separations and accurate results. Explore our catalog to discover the full range of columns, chemistries, and support services designed to empower your laboratory's success.

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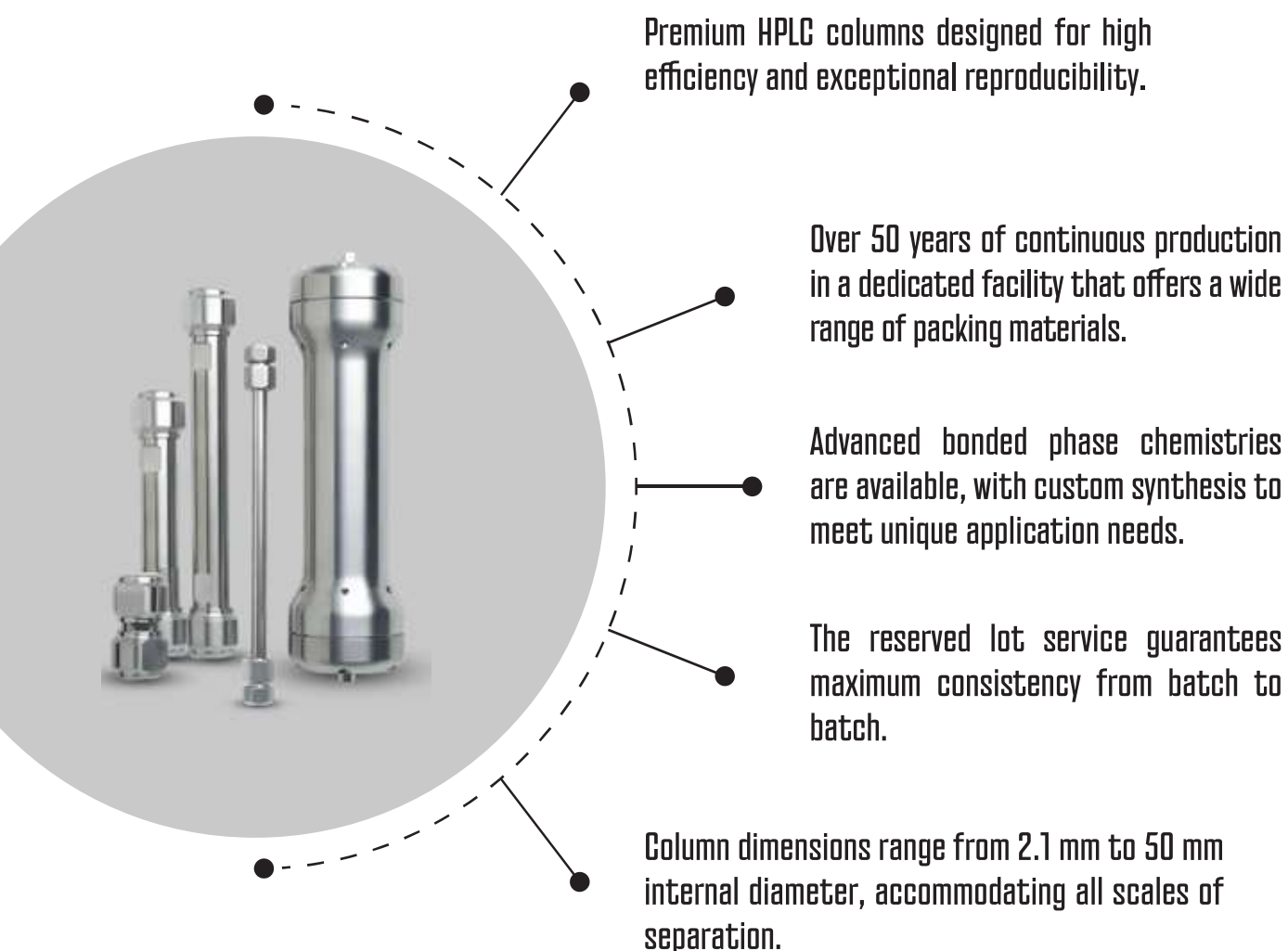
About us

Richard Kohler founded our family company in 1964, under Eastern Scientific Industries. We started as a manufacturer representative for Siemens Analytical, specializing in sales and technical support for X-ray equipment. As the pharmaceutical presence in New Jersey grew, our focus shifted to gas chromatography instruments and columns. With the arrival of the second generation, we branched out into liquid chromatography, initially packing large vendor products into HPLC columns. We advanced to synthesizing our own chemistries, and ES Industries quickly became known for innovative and new HPLC and SFC phases. Eventually, we expanded beyond the East Coast pharmaceutical market to establish a worldwide distribution network, providing support to all types of industries. Now, in our third generation and revitalized under a new look, Vintage Chrom, we offer an updated line of chemistries, from legacy methods phases to fluorinated and SFC specialties, as well as preparative and bulk services. With over 50 years of experience spanning three generations, we continue to operate from our same facility in New Jersey and look forward to providing quality and innovative solutions to the chromatography community.



With over 50 years of experience as a third-generation family business, Vintage Chrom is committed to producing high-quality chromatography columns that are both reproducible and scalable.

Operating from our New Jersey facility, we provide chromatographers with a comprehensive portfolio of advanced bonded phases and packing materials—each engineered using state-of-the-art bonding chemistry to meet the demands of modern separations. Our extensive experience allows us to deliver products renowned for their performance, durability, and consistent results across a wide range of applications.



Our product brands include:

- **Vintage Bond** – Classic reversed-phase and specialty columns
- **Vintage ARO** – Aromatic and specialty phase columns
- **Vintage FSep** – Fast separation and high-throughput columns
- **Vintage BIO** – Wide-pore columns for proteins, peptides, and biomolecules
- **Vintage SEC** – Size exclusion chromatography solutions
- **Vintage SFC** – Columns optimized for supercritical fluid chromatography
- **Equivalents** – Trusted alternatives to industry standards

From small-bore analytical columns to preparative and bulk materials, our products are designed to support chromatographers at every scale and in every field.

We invite you to discover our complete range of traditional, innovative, and industry-leading column solutions.

VINTAGE
BOND



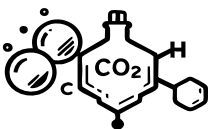
Vintage BIO



VINTAGE
SEC



VINTAGE SFC



VINTAGE
ARO



VINTAGE
FSep





Ordering Information

Please contact LCSales@VintageChrom.com for more information or visit us at www.VintageChrom.com

Vintage Chrom accepts check wire, ACH, and credit card payments.

Please direct all mail :

Vintage Chrom LLC

701 South Route 73 West Berlin,
NJ 08091-2621 USA

Vintage Chrom offers a wide range of columns and packings to provide the chromatographer with different sizes and selectivities necessary to solve difficult separation problems. Please review our product part number system and contact us for any assistance. Be sure to include:



**Purchase Order
Number**



**Your Billing
Address**



**Your Shipping
Address**



**Our catalog number
and the product
description**



**Your name and
telephone number**

Terms

We welcome all orders of any size. Please request payment terms on the initial order. All orders are shipped pre-paid and added with the most efficient carrier unless customer shipping accounts are provided. F.O.B. shipping point. Prices are subject to change without notice.

Special pricing is available on large quantities.

Dealer inquiries are welcome.

Returns

Please contact LCSales@vintagechrom.com for a return request. All claims must be made within 30 days of shipping and will be evaluated on a case-by-case basis. Report shipping damage to the carrier. Keep containers and packaging materials for inspection.

Warranty

Vintage Chrom products are warranted to be free from defects in material and workmanship. We will replace, without cost, any materials that carry such defects. Our products are not warranted against misuse.

If you have a question regarding a specific Vintage Chrom product, please contact LCSales@vintagechrom.com. All other warranties, express or implied, including, but not limited to, the implied warranty of merchantability, fitness for a particular use, or any other matter, are disclaimed. Vintage Chrom products are intended for laboratory use only. The information represented in this catalog is correct and reliable to the best of our knowledge but is not guaranteed. Vintage Chrom shall not, under any circumstances, be held liable for any incidental, consequential, or compensatory damage arising from the use of or in conjunction with its products.

Column Part Number Matrix

Please review the ordering guide below and contact LCSales@vintagechrom.com if you need assistance. If you do not see a size listed, please reach out to us for availability. We will do our best to accommodate custom orders.

Column Type

The first digit in the catalog number will indicate the column type. Select the appropriate number corresponding to the desired column type.

- (1) Stainless Steel compression
- (5) Ultra High Pressure Hardware

Column Length

The second digit in the catalog number will indicate the column length. Select the appropriate number or letter corresponding to the desired column length.

- (A) 35mm (33mm also available)
- (1) 50mm
- (9) 75mm
- (2) 100mm
- (0) 125mm
- (3) 150mm
- (4) 200mm
- (5) 250mm
- (6) 300mm
- (7) 500mm

Column Diameter (I.D.)

The third digit will indicate column diameter (I.D.). Select the appropriate letter or number

- (2) 2.1mm
- (d) 3.2mm
- (3) 3.0mm
- (e) 3.9mm
- (4) 4.0mm
- (5) 4.6mm
- (7) 10mm (7.8mm and 9.6mm also available)
- (8) 20mm (21.2mm also available)
- (2) 21.2mm
- (N) 30mm
- (F) 50mm
- (L) 100mm

Particle Size

Packing support particle size will be indicated by the fourth digit. Select the appropriate number corresponding to desired particle size.

- (A) 1.8um
- (H) 2.5um
- (1) 3um
- (X) 3.5um
- (8) 4um
- (2) 5um
- (3) 10um
- (B) 15um
- (G) 20um

Pore Diameter

The fifth digit will indicate the pore diameter. Select the appropriate number corresponding to the desired pore diameter.

- (T) 50A
- (1) 60A
- (7) 80A
- (2) 100A
- (9) 120A
- (R) 125A
- (0) 150A
- (A) 200A
- (3) 300A
- (J) 400A
- (4) 500A
- (K) 700A
- (5) 1000A
- (Q) 1200A

QC

Quality control test required in accordance with product category QC Test.

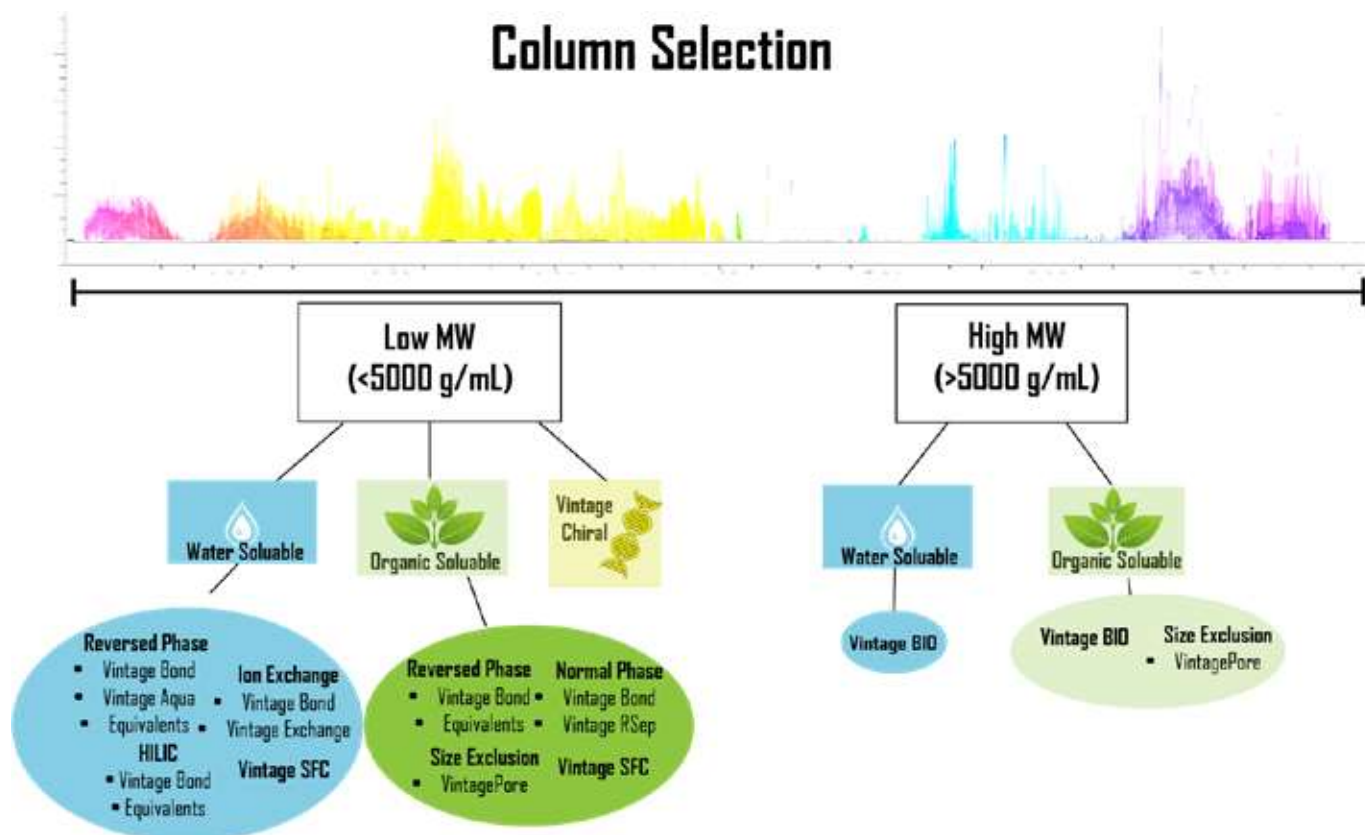
Bonded Phase

Please specify the bonded phase at the end of the part number.

Example: A stainless steel compression column, 250mm long, 4.6mm internal diameter packed with Vintage Bond C18, 120

Part Number: 155291-C18

Selecting the Right HPLC Column



Choosing the right stationary phase is essential for effective chromatographic separation. Begin by assessing your sample's solubility, molecular weight, and chemical properties, then match these with the most appropriate separation mode, such as reversed-phase, normal-phase, ion-exchange, or size-exclusion chromatography. The chart above provides a quick reference for selecting Vintage columns according to molecular weight and solubility.

Key factors to guide your selection:

- **Molecular size:** Utilize pore size and column chemistry that are suitable for your analytes (e.g., 100–120 Å for small molecules, 300–400 Å for proteins and peptides).
- **Solubility:** Water-soluble, organic-soluble, or chiral compounds may require different stationary phases.
- **Separation mode:** Choose reversed phase for most small molecules, size exclusion for large biomolecules, ion exchange for charged species, and chiral columns for enantiomeric separations.
- **Method Development:** Utilize columns with different selectivities during method development to optimize resolution and robustness.

Our columns are designed for high efficiency, reproducibility, and robust performance across a wide range of analytical challenges. For technical assistance or help with product selection, contact us at LCSales@VintageChrom.com

Reversed Phase Separations

Reversed-phase (RP) chromatography is the most commonly used HPLC separation mode, making it ideal for analytes that are soluble in water or water-organic mixtures. RP columns are a preferred choice for small molecules and a wide range of applications due to their versatility and reliable performance.

Modern RP columns extend beyond traditional C18 and C8 chemistries, now including “AQ” types for improved retention of polar analytes and specialty phases that provide enhanced selectivity. Vintage Chrom’s portfolio features not only these classic phases but also advanced options such as naphthyl, phenyl-hexyl, and pentafluorophenyl (PFP) columns, which offer exceptional aromatic and n-n selectivity for challenging separations.

All Vintage Chrom RP columns are engineered for high efficiency, reproducibility, and exceptional peak shape, accommodating everything from routine analyses to advanced method development in today’s demanding laboratories.

Normal Phase Chromatography

Normal-phase (NP) chromatography is a classic liquid chromatography technique that separates analytes based on their polarity using a polar stationary phase and a nonpolar mobile phase. In normal-phase separations, silica or bonded polar groups (such as amino, cyano, or diol) are commonly used as the stationary phase, attracting polar compounds, while nonpolar organic solvents like hexane and ethyl acetate serve as the mobile phase.

NP chromatography is particularly effective for the analysis of nonpolar or moderately polar compounds that are poorly soluble in water but dissolve readily in organic solvents. This mode is often chosen for the separation of geometric and positional isomers, lipids, and compounds with subtle differences in polarity.

Modern NP columns go beyond bare silica and now include specialized chemistries like amino, cyano, and diol phases for improved selectivity and method versatility. The Vintage Chrom portfolio features high-purity silica columns and functionalized normal-phase options, allowing precise separations across a diverse set of applications in pharmaceuticals, environmental studies, food additives, and natural products.

All Vintage Chrom NP columns are designed for high efficiency, reproducibility, and robust separation performance, supporting both routine analyses and specialized method development.

Preparative Chromatography

Preparative chromatography is a powerful method for isolating and purifying pharmaceutical compounds, natural products, and biomolecules. Scaling up from analytical to preparative HPLC can be challenging, but developing the separation on an analytical column is essential for method optimization and successful scale-up. Evaluating different analytical columns helps determine the best conditions for preparative separations. The Vintage Chrom product line is fully scalable, offering both analytical and preparative columns to support seamless transition from method development to large-scale purification.

Preparative HPLC is always a trade-off between sample throughput and sample purity. The length of a given column depends on the quality of the separation. Separation quality is generally based on several factors including relative selectivity (α), resolution (R_s) and sample loading. Resolution is a combination of α , peak sharpness (plates) and peak shape (tailing factor). Column length affects all quality factors, but it affects resolution most – the shorter the column the lower the resolution. If the required purity for isolated compounds is low then the quality of the separation (resolution) is less important and therefore a column of shorter length maybe utilized. However, if the required purity for the isolated compounds is high then the quality of the separation (resolution) is greater and therefore a column with the same length or longer than the analytical column may be required. The selection of column length starts with the analytical column.

Column diameter has a direct effect on sample loading – columns with large diameters have a higher sample loading capacity than columns with small diameters. Column flow directly affects throughput the higher the flow rate the faster the separation can be completed. However, high flow rates will reduce resolution.

Column Diameter Sample Loading

Column Diameter (mm)	$\alpha \leq 1.2$	$\alpha \leq 1.5$
10	10–30mg	100–500mg
15	30–100mg	300–1000mg
20	50–200mg	500–2000mg
30	250–1000mg	2000–6000mg
50	2000–10000mg	10000–50000mg

Column Flow

Column Diameter (mm)	Typical Flow (mL)
10	1–5
15	4–15
20	5–20
30	15–45
50	40–120

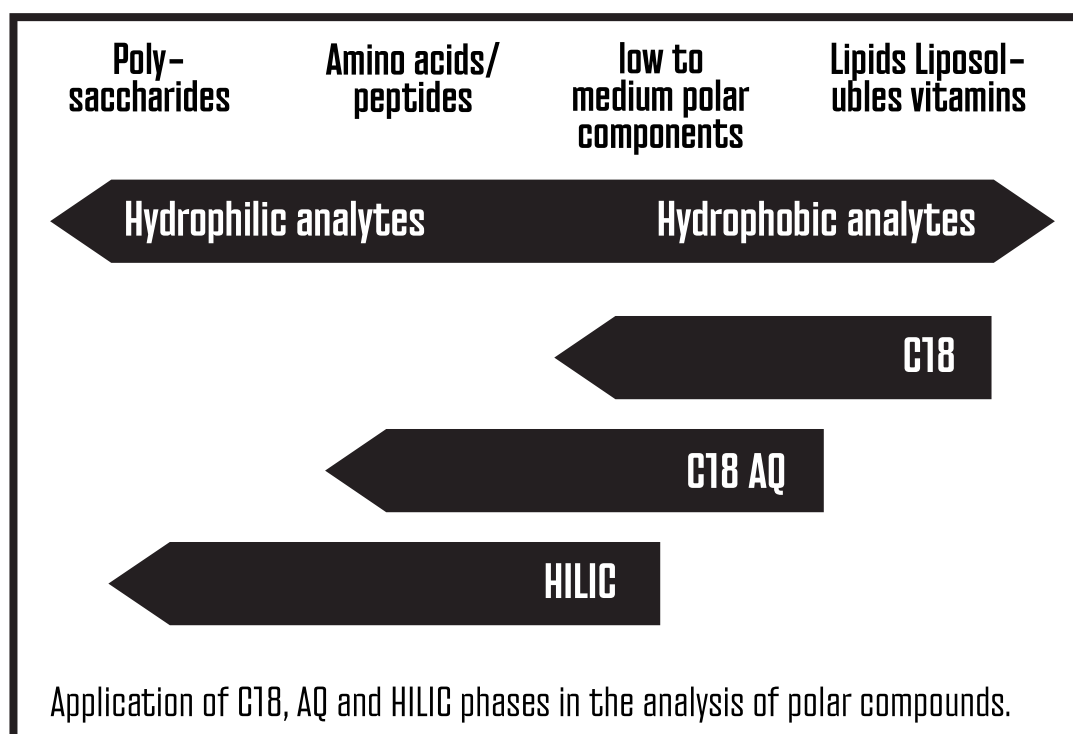
*It should be noted that these are not maximum flow rates. The maximum flow rate for a given column is dependent on many factors including: column diameter, column length, packing material particle size, operating temperature, chromatographic resolution of the separation, the required purity of the isolated compounds and mobile phase composition.



HILIC Separations

Hydrophilic interaction liquid chromatography (HILIC) combines aspects of normal phase, reversed phase, and ion chromatography. HILIC uses reversed phase-type eluents with polar stationary phases, enabling the separation of highly polar compounds. A water-rich layer forms on the polar stationary phase, promoting liquid-liquid partitioning, while dipole-dipole and electrostatic interactions also contribute to retention. As a result, more polar analytes are retained longer, and elution order is opposite to reversed phase HPLC.

Vintage Chrom offers a comprehensive range of Vintage HILIC columns, including the innovative Vintage HILIC PDH phase—featuring a polyhydroxylated polymer coating on silica for enhanced performance and higher hydroxyl content compared to conventional diol phases. These columns provide alternative selectivity and robust retention for challenging polar analytes.



Size Exclusion Separations

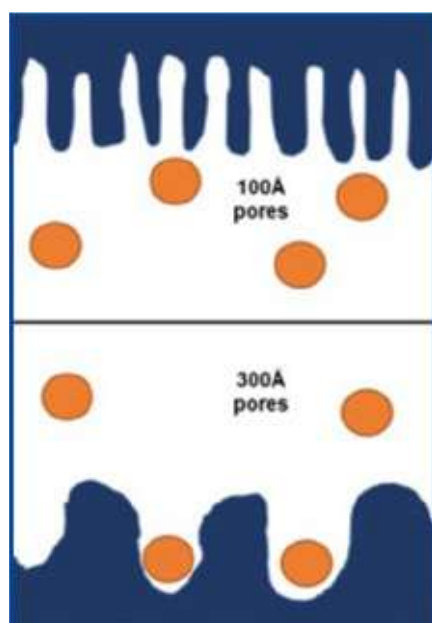
Size exclusion chromatography (SEC) is a key technique for separating and characterizing proteins and polymers by size, with larger molecules eluting first and minimal interaction between analyte and stationary phase. Smaller molecules penetrate the pores and take longer paths, resulting in effective separation by hydrodynamic volume. SEC is also widely used to determine the molar mass distribution of polymers.

Vintage SEC columns are available in silica, diol-bonded silica, and TMS-bonded silica phases, ensuring effective separation of both aqueous and organic-soluble analytes.

Wide Pore Reverse Phase Separations

Reversed-phase HPLC is widely used for separating peptides and proteins. Standard small-pore silicas ($\sim 100 \text{ \AA}$) are effective for small peptides but perform poorly with larger peptides and proteins, which cannot access the interior of the pores and interact only with the limited external surface. Wide-pore silicas ($\sim 300 \text{ \AA}$ and above) allow larger biomolecules to enter the pores, resulting in improved resolution and peak shape. While small-pore columns are suitable for small peptides, wide-pore columns can be used for both small and large biomolecules, often providing different selectivity and enhanced separation.

Vintage BIO wide-pore columns offer superior performance for the analysis of proteins, peptides, and other biomolecules, giving bioanalytical chromatographers the resolution and reliability needed for demanding applications.

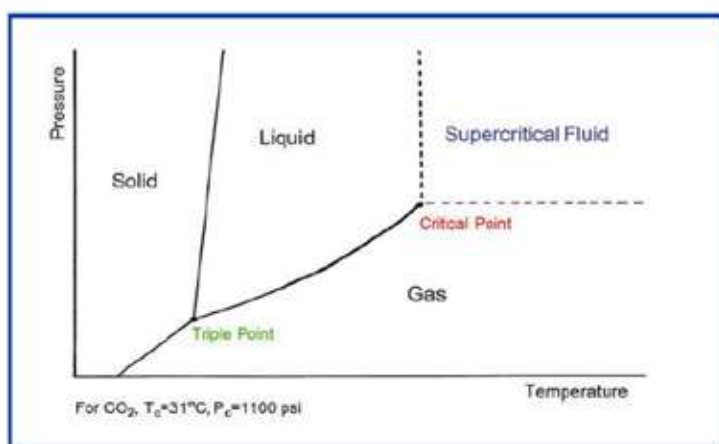


Representation of small pore particles ($\sim 100 \text{ \AA}$) vs. wide pore particles ($\sim 300 \text{ \AA}$). Smaller pores do not allow most proteins to enter the pores, which limits interaction.

Supercritical Fluid Chromatography Separations

Supercritical fluid chromatography (SFC) is an environmentally friendly technique that uses CO_2 as the primary mobile phase, making it ideal for both preparative and rapid analysis of complex mixtures. CO_2 -based mobile phases allow for high-performance separations on preparative columns (10–50 mm ID) with particle sizes from 3 to 20 μm , enabling fast and efficient purification.

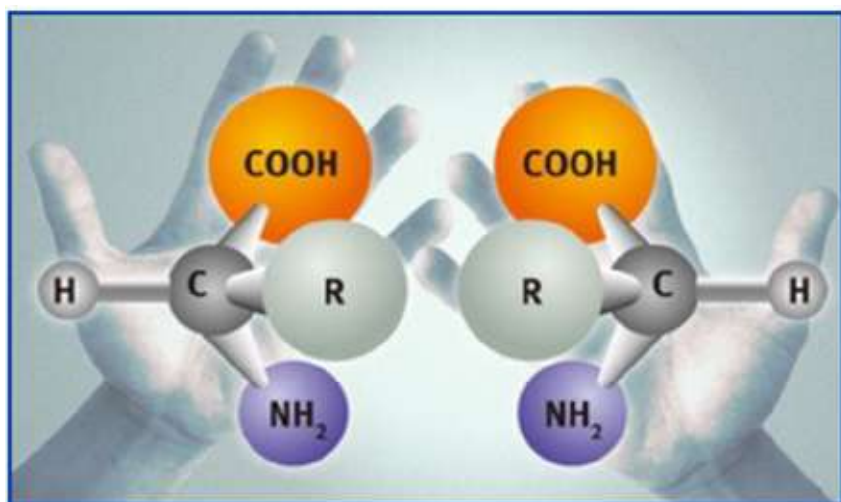
SFC serves as an excellent orthogonal technique to reversed-phase HPLC, offering robust performance and selectivity similar to normal phase LC. While traditional normal phase stationary phases—such as unmodified silica, diol, amino, and cyano—often show limitations in SFC (including low capacity and poor peak shape), Vintage SFC stationary phases are specifically engineered for SFC applications. These columns provide high capacity, excellent selectivity, and superior peak shape for demanding separations.



Phase diagram for carbon dioxide.

Chiral Separations

Chirality is essential in the pharmaceutical, chemical, and agricultural industries, as even subtle structural differences can lead to dramatically different biological effects. The need for precise stereoselective separation and enantiomeric purity analysis has made chiral chromatography—using both HPLC and SFC—an indispensable tool for both analytical and preparative applications. Vintage SFC Chiral offers a comprehensive range of innovative chiral stationary phases (CSPs) designed to meet the demands of enantiomer separation and purification.



LC Column Selection Overview

Brand	Phase	Particle Size (µm)	Pore size (Å)	Carbon %	End Cap	Application	USP Code
Wonder	ODS	3, 5	100, 150			Equivalent to Phenomenex Prodigy, C8, ODS2, ODS3, Phenyl, and Silica phases also available	L1
Vintage Sorb	RP18					Equivalent to Merck Lichrosorb, C2, C8, and other phases also available	L1
Vintage Star	C18	2.5, 3.5, 5, 10	100	16	Yes	Equivalent to Water Sunfire C18	L1
Vintage Star	C8	2.5, 3.5, 5, 10	100	12	Yes	Equivalent to Water Sunfire C8	L7
Vintage SFC	Chiral 2	3, 5, 10, 20	1000		No	Chiral separations	
Vintage SFC	Chiral 3	3, 5, 10, 20	1000		No	Chiral separations	
Vintage SFC	Chiral 4	3, 5, 10, 20	1000		No	First choice for chiral separations of halogenated containing compounds	
Vintage SFC	Chiral A	3, 5, 10, 20	1000		No	First choice overall for chiral separations	L51
Vintage SFC	Chiral FL-4	3, 5, 10, 20	1000		No	Chiral separations, fluorinated	
Vintage SFC	Chiral C	3, 5, 10, 20	1000		No	Second choice for chiral separations of halogenated containing compounds	
Vintage SFC	Chiral J	3, 5, 10, 20	1000		No	Third choice overall for chiral separations	L80/L107
Vintage SFC	Chiral O	3, 5, 10, 20	1000		No	Second choice overall for chiral separations	L40/L93
Vintage SFC	Chiral O FL-2	3, 5, 10, 20	1000		No	Second choice for chiral separations of fluorine containing compounds	
Vintage SFC	Chiral O FL-4	3, 5, 10, 20	1000		No	First choice for chiral separations of fluorine containing compounds	
Vintage SFC	Chiral O FL-4T3	3, 5, 10, 20	1000		No	Chiral separations, fluorinated	
Vintage SFC	Chiral S	3, 5, 10, 20	1000		No	Fourth choice overall for chiral separations	L90
Vintage SFC	Chiral U	3, 5, 10, 20	1000		No	Chiral separations	
Vintage SFC	Chiral X	3, 5, 10, 20	1000		No	Chiral separations	
Vintage SFC	PYE4	1.8, 3, 5, 10	120			SFC of aromatic amines without mobile phase additives	
Vintage SFC	PYE4-II	1.8, 3, 5, 10	120			SFC of aromatic amines and aromatic acids without mobile phase additives	
Vintage SFC	Amine	1.8, 3, 5, 10	120			SFC of polar compounds such as weak acids and amine containing compounds	
Vintage SFC	Basic	1.8, 3, 5, 10	120			Second overall choice for the SFC of amines, amides and heterocyclic nitrogen compounds without mobile phase additives	
Vintage SFC	Cyano	1.8, 3, 5, 10	120			n-n interaction, polar interaction for the SFC of pharmaceuticals, food additives, basic chemicals, natural products, pesticides	
Vintage SFC	DEAP	1.8, 3, 5, 10	120			SFC of alcohol containing compounds	
Vintage SFC	Diol	1.8, 3, 5, 10	120			Sixth overall choice for SFC separations of polar compounds such as weak acids and alcohol containing compounds	
Vintage SFC	PYE	1.8, 3, 5, 10	120			SFC of amines without mobile phase additives	
Vintage SFC	PYE-II	1.8, 3, 5, 10	120			Third overall choice SFC separation of amines and acids without mobile phase additives	
Vintage SFC	FluoroBasic	1.8, 3, 5, 10	120			SFC of amines, amides and heterocyclic nitrogen compounds containing halogenated without mobile phase additives	
Vintage SFC	Naphthyl	1.8, 3, 5, 10	120			Fifth overall choice for SFC separations with a strong n-n interaction useful for the separation of neutral compounds including pharmaceuticals, food additives, basic chemicals, natural products, pesticides	
Vintage SFC	Nitro	1.8, 3, 5, 10	120			Fourth overall choice for the SFC separation of geometrical aromatic isomers, and diastereomers	
Vintage SFC	PFP	1.8, 3, 5, 10	120			Strong n-n interaction for the SFC separation of halogenated compounds including pharmaceuticals, food additives, basic chemicals, natural products, pesticides	
Vintage SFC	Pyridyl Amide	1.8, 3, 5, 10	120			First overall choice SFC separations in general particularly useful for alcohols, amides and heterocyclic nitrogen compounds without mobile phase additives	
Vintage SFC	Silica	1.8, 3, 5, 10	120			SFC of diastereomeric polar compounds such as weak acids and alcohol containing compounds	
Vintage SEC	TMS	3,5,10	60, 100, 120, 200, 300, 500, 1000			GPC of polymers using organic solvents	

Brand	Phase	Particle Size (um)	Pore size (A)	Carbon %	End Cap	Application	USP Code
Vintage SEC	Silica	3,5,10	60, 100, 120, 200, 300, 500, 1000			GPC of polymers using organic solvents	
Vintage SEC	Diol	3,5,10	60, 100, 120, 200, 300, 500, 1000			GPC of polymers using organic solvents	
Vintage PSep	ODS3	5, 10	85	18	Yes	Equivalent to Whatman Partisil ODS3. Other phases available.	
Vintage Natural	Cannabinoid	3	120	18	Yes	Reverse phase analysis of cannabinoids	L1
Vintage Natural	NP-10	5, 10				Optimized for the SFC separation of cannabinoids, especially for the enhanced separation of THC and THCV	
Vintage Natural	THC	5, 10				Optimized for the SFC separation of cannabinoids, especially for the enhanced separation of THC	
Vintage Natural	NP-9	5, 10				Optimized for the preparative SFC separation of cannabinoids especially for the separation of THC and CBD	
Vintage Mach	C18	3, 5, 10	50, 100			Equivalent to Nucleosil C18. Other phases also available	L1
Vintage KSiI	HC C18	3.5, 7, 10	100	22	Yes	Equivalent to Kromasil C18. High carbon ideal for LC/MS mobile phases used for Analysis of pharmaceuticals, and phenols	L1
Vintage KSiI	HC C8	3.5, 7, 10	100	12	Yes	Equivalent to Kromasil C8. More hydrophilic than C18	L7
Vintage FSep	FSP	3, 5	60, 100		No	Alternative to ODS, Fluorinated Phenyl is an excellent alternative to ODS Columns for the bulk characterization of pharmaceuticals, and resolving difficult impurities. Also offered in high surface 60A version used in Taxol analysis	L45
Vintage FSep	FO LB	1.8, 3, 5, 10	120		Yes	"Analysis of halogenated compounds including halogenated pharmaceuticals. and PFOS in environmental samples. More hydrophilic than Alkyl C8"	
Vintage FSep	PPF-LB	1.8, 3, 5, 10	120		Yes	"Strong n-n interaction for the analysis of halogenated compounds including halogenated pharmaceuticals, halogenated basic chemicals, aromatic natural products, and halogenated pesticides"	L43
Vintage Bond Z	C18	3, 5	80	12	No	Equivalent to Agilent Zorbax RX C18, pharmaceuticals, and basic chemicals	L1
Vintage Bond Z	C8	3,5	80		No	Equivalent to Agilent Zorbax RX C8, pharmaceuticals, and basic chemicals	L7
Vintage Bond Petro	DNAP I	5	100		No	Normal phase separation of petroleum for the analysis of aromatic content	
Vintage Bond Petro	DNAP II	5	100		No	Normal phase separation of petroleum for the analysis of aromatic content	
Vintage Bond Petro	RSep (nitro aromatic)	5, 10	60		No	Aromatic ring class analysis of petroleum	
Vintage Bond MU	C18	1.8, 3, 5, 7, 10	120	16	Yes	Analysis of pharmaceuticals, environmental samples and natural products. More hydrophilic than Vintage Bond C18	L1
Vintage Bond MU	C4	3, 5, 10	120	5	Yes	More stable with high aqueous mobile phases than most C4 phases. Analysis of pharmaceuticals, and natural products. More hydrophilic than Vintage Bond C4-SD	L26
Vintage Bond MU	C8	3, 5, 10	120		No	Analysis of pharmaceuticals, food additives, basic chemicals, natural products, pesticides. More hydrophilic than C18 and Vintage Bond C8	L7
Vintage Bond MU	Cyano	3, 5, 10	120		No	n - n interaction, polar interaction for the analysis of polar pharmaceuticals	L10
Vintage Bond HILIC	HILIC FL	1.8, 3, 5, 10	120			HILIC mode for the analysis of polar halogenated compounds including halogenated pharmaceuticals	
Vintage Bond HILIC	HILIC RP	1.8, 3, 5, 10	120			HILIC mode for the analysis of samples containing non-polar and polar compounds including polar pharmaceuticals	
Vintage Bond HILIC	HILIC PI	1.8, 3, 5, 10	120			HILIC mode for the analysis of polar amine compounds including amine containing pharmaceuticals	
Vintage Bond HILIC	HILIC POH	1.8, 3, 5, 10	120			HILIC mode for the analysis of polar compounds including polar pharmaceuticals. More deactivated than silica	
Vintage Bond HILIC	HILIC Silica	1.8, 3, 5, 10	120			HILIC mode for the analysis of polar compounds including polar pharmaceuticals	
Vintage Bond	RP-SCX/IPI	5, 10	60, 200		No	An aromatic based strong cation exchanger with C8 alkyl chain used for the analysis of isonicotinic acid, pyridinamide and isoniazid in tablets	L44
Vintage Bond	Aqua	3, 5, 10	100	16	No	Organic acids, polar pharmaceuticals, water soluble vitamins, polar organics stable with 100% aqueous mobile phases	L7

Brand	Phase	Particle Size (um)	Pore size (Å)	Carbon %	End Cap	Application	USP Code
Vintage Bond	Aqua	3, 5, 10	100	16	No	Organic acids, polar pharmaceuticals, water soluble vitamins, polar organics stable with 100% aqueous mobile phases	L7
Vintage Bond	C18	3, 5, 10	100	12	No	Equivalent to Agilent Zorbax RX C18, pharmaceuticals, and basic chemicals	L1
Vintage Bond	Amino Cyano	3, 5, 10	60, 100		NO	A cyano and amine bonded to silica used for the analysis of pharmaceutical products	L18
Vintage Bond	C2	5, 10	60		No	Dimethyl group bonded to silica used for the analysis of pharmaceutical products	L16
Vintage Bond	C6	3, 5	60	6	No	n-hexyl group bonded to silica used for the analysis of pharmaceutical products	L15
Vintage Bond	MC18	3, 5, 10	100	18	Yes	Equivalent selectivity to other C18 phases from the 60 Å silica. Analysis of pharmaceuticals, and environmental.	L1
Vintage Bond	PSC C8/C18	3.5, 10	100	14	Yes	C8/C18 phase useful for the analysis of pharmaceuticals	L42
Vintage Bond	UL C18	3, 5, 10	100	12	Yes	Alternative to Beckman Ultra C18 and Waters Spherisorb	L1
Vintage Bond	UL C8	3, 5, 10	80	12	Yes	Alternative to Beckman Ultra C8 and Waters Spherisorb	L7
Vintage Bond	Amine HD	1.8, 3, 5, 10	60, 100, 200		No	Can be used in normal and reverse phase, analysis of polar compounds including sugar	L8
Vintage Bond	C18	1.8, 3, 5, 10	120	18	Yes	Useful for pH 1–10. Base deactivated for the analysis of pharmaceuticals, food additives, basic chemicals, natural products, and pesticides	L1
Vintage Bond	C18 MS	1.8, 3, 5, 10	120	22	No	Optimized for the LC/MS analysis of pharmaceutical, food additives, basic chemicals, natural products, pesticides	L1
Vintage Bond	C18 SD	1.8, 3, 5, 10	120	25	Yes		
Vintage Bond	C4 SD	1.8, 3, 5, 10	120	12	Yes	Analysis of pharmaceuticals, food additives, basic chemicals, natural products, pesticides. More hydrophilic than C8	L26
Vintage Bond	C8	1.8, 3, 5, 10	120	10	Yes	Analysis of pharmaceuticals, food additives, basic chemicals, natural products, pesticides. More hydrophilic than C18	L7
Vintage Bond	Cyano	1.8, 3, 5, 10	120		No	Can be used in normal and reversed phase n–n interaction, polar interaction for the analysis of polar pharmaceuticals, and aromatic natural products	L10
Vintage Bond	Diol	1.8, 3, 5, 10	60, 120		No	Can be used in normal and reverse phase, analysis and separation of polar compounds	L20
Vintage Bond	Polar	1.8, 3, 5, 10	120	18	No	Organic acids, polar pharmaceuticals, water soluble vitamins, polar organics. Stable with 100% aqueous mobile phases	L1
Vintage Bond	Silica	1.8, 3, 5, 10	120			Can be used in normal phase analysis of polar compounds	L3
Vintage Bond	Si60	3, 5	60, 100			Similar to Merck Lichrospher, great for vitamin analysis	
Vintage BIO	Aqua	3, 5, 10	400, 700, 1200		Yes	"Biological samples such peptides and protein of various molecular weight, stable with 100% aqueous mobile phases"	L7
Vintage BIO	C18	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight	L1
Vintage BIO	C4	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, less hydrophilic than C8, high bond density	L26
Vintage BIO	C8	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, less hydrophilic than C18	L7
Vintage BIO	Cyano	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with n–n interaction	L10
Vintage BIO	HPR	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and proteins greater of various molecular weight with lipophilic character for analysis	
Vintage BIO	Biphenyl	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with strong n–n interaction	L11
Vintage BIO	Diphenyl	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with n–n interaction	L11
Vintage BIO	Naphthyl	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with strong n–n interaction	
Vintage ARO MU	Phenyl	3, 5, 10	120		No	n–n interaction for the analysis of aromatic chemicals	L11
Vintage ARO MU	Biphenyl	3, 5, 10	120		No	Strong n–n interaction for the analysis of aromatic based pharmaceuticals, flavors, natural products, and aromatic pesticides	L11
Vintage ARO	Biphenyl	1.8, 3, 5, 10	120	25	Yes	Strong n–n interaction for the analysis of aromatic pharmaceuticals, flavor compounds, and aromatic natural products	L11

Brand	Phase	Particle Size (um)	Pore size (Å)	Carbon %	End Cap	Application	USP Code
Vintage ARO	Diphenyl	1.8, 3, 5, 10	120	20	Yes	n-n interaction for the retention of aromatics. More hydrophilic than biphenyl or naphthyl	L11
Vintage ARO	Naphthyl	1.8, 3, 5, 10	120	25	Yes	Strong n-n interaction when compared to biphenyl used for the analysis of neutral compounds including pharmaceuticals, food additives, and natural products	
Vintage ARO	Phenyl	1.8, 3, 5, 10	120	16	Yes	n-n interaction for the analysis of neutral aromatic compounds. More hydrophilic than diphenyl	L11
Vintage ARO	Phenyl Hexyl	1.8, 3, 5, 10	120	18	Yes	"Combination of n-n and hydrophobic interaction for the analysis of neutral and aromatic compounds including pharmaceuticals"	L11
Uniformity Secure	RP18	3.5, 5	100		Yes	Equivalent to Waters SymmetryShield, pharmaceuticals, food additives, basic chemicals, natural products, pesticides	L1
Uniformity	C4	3.5, 5, 10	100,300		Yes	Equivalent to Waters Symmetry	L26
Uniformity	C8	3.5, 5, 10	100,300		Yes	Equivalent to Waters Symmetry	L7
Uniformity	C18	3.5, 5, 10	100,300	19	Yes	Equivalent to Waters Symmetry	L1
Nappa	C18	3, 5, 10, 15	100	17.5	Yes	Equivalent to Phenomenex Luna C18/2. Other phases also available	L1
Nappa	C8	3, 5, 10, 15	100	13.5	Yes	Equivalent to Phenomenex Luna C8/2	L7
Minipak	C18	5, 10	125	10	Yes	Equivalent to Waters ubondapak C18. Amino, C8, Phenyl, Cyano, and Silica phases also available	L1
Mercury	dC18	3, 5	100	12	Yes	Equivalent to Waters Atlantis dC18. Pharmaceuticals, food additives, basic chemicals, natural products, pesticides	
Maverick	C18	3, 5	100, 300	15.9	Yes	Equivalent to ACE C18, other phases available. Compatible with LC/MS mobile phases used for pharmaceuticals, food and beverages, and cosmetics	L1
Maverick	C8	3, 5	100, 300	9	Yes	Equivalent to ACE C8, other phases available. Compatible with LC/MS mobile phases used for pharmaceuticals, food and beverages, and cosmetics	L7
HyperLine	BDS C18	3, 5, 10	120	15	Yes	Equivalent to Thermo Hypersil BDS C18, other phases available	L1
HyperLine	ODS1	3, 5, 10	120	15	Yes	Equivalent to Thermo Hypersil ODS1, other phases available	L1
HyperLine	ODS2	3, 5, 10	120	12	Yes	Equivalent to Thermo Hypersil ODS2, other phases available	L1
DAS Silica	Silica	3, 5, 10	100, 150			Equivalent to Intersil Silica, other phases available	L3
DAS Phenyl	Phenyl	3, 5, 10	100		Yes	Equivalent to Intersil Phenyl, other phases available	L11
DAS ODS3	ODS3	3, 5, 10	100	22	Yes	Equivalent to Intersil ODS2, other phases available	L1
DAS ODS2	ODS2	3, 5, 10	150	18	Yes	Equivalent to Intersil ODS2, other phases available	L1
Vintage BIO	C18	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight	L1
Vintage BIO	C4	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, less hydrophilic than C8, high bond density	L26
Vintage BIO	C8	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, less hydrophilic than C18	L7
Vintage BIO	Cyano	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with n-n interaction	L10
Vintage BIO	HPR	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and proteins greater of various molecular weight with lipophilic character for analysis	
Vintage BIO	Biphenyl	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with strong n-n interaction	L11
Vintage BIO	Diphenyl	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with n-n interaction	L11
Vintage BIO	Naphthyl	3, 5, 10	400, 700, 1200		Yes	Biological samples such peptides and protein of various molecular weight, with strong n-n interaction	
Vintage ARO MU	Phenyl	3, 5, 10	120		No	n - n interaction for the analysis of aromatic chemicals	L11
Vintage ARO MU	Biphenyl	3, 5, 10	120		No	Strong n-n interaction for the analysis of aromatic based pharmaceuticals, flavors, natural products, and aromatic pesticides	L11
Vintage ARO	Biphenyl	1.8, 3, 5, 10	120	25	Yes	Strong n - n interaction for the analysis of aromatic pharmaceuticals, flavor compounds, and aromatic natural products	L11

LC Guard Column Cartridges

Guard column cartridges safeguard your analytical column and can prolong its lifespan by up to 400%. Positioned between the injector and the analytical column, they capture contaminants that could otherwise irreversibly damage the stationary phase, helping to mitigate the effects of aggressive mobile phases.

For optimal performance, the guard column packing should align with the analytical column, providing added capacity without compromising sensitive separations. Alternatively, employing a different stationary phase in the guard column can selectively eliminate specific impurities.

Vintage Chrom guard column cartridges are packaged using a high-performance slurry method to ensure system efficiency. They are easy to install and replace, and are available in all Vintage Chrom phase chemistries in analytical, semi-prep, and preparative sizes.



Guard Cartridge Holders

Description	For use with	Part No.
Analytical Guard Cartridge Holder with Integrated Coupler (Pkg. 1)	500101-XXX and 500103-XXX Analytical Guard Column Cartridges	VC500100
Semi-Preparative Guard Cartridge Holder (Pkg. 1)*	300121-XXX Semi-Preparative Guard Column Cartridge	300120
Preparative Guard Cartridge Holder (Pkg. 1)*	300141-XXX Preparative Guard Column Cartridge	300140

*Separate coupler assembly required, see table below.

Guard Cartridge Holder Column Couplers

Column couplers are required for the semi-preparative (P/N: 300120) and preparative (P/N: 300140) guard cartridge holders. The analytical guard cartridge holder comes with an integrated coupler.

Description	For use with	Part No.
Stainless steel high pressure pre-column/column coupler assembly, 5cm x 0.005" x 1/16" (Red Band)	3-10 mm ID HPLC and SFC column/guard	300107
Stainless Steel High Pressure Pre-Column/Column Coupler Assembly, 5cm x 0.007" x 1/16" (Black Band)	20 mm ID HPLC and SFC column/guard	300108
Stainless Steel High Pressure Pre-Column/Column Coupler Assembly, 5cm x 0.010" x 1/16" (Blue Band)	30 mm ID HPLC and SFC column/guard	300109
Stainless Steel High Pressure Pre-Column/Column Coupler Assembly, 5cm x 0.010" x 1/16" (Yellow Band)	50 mm ID HPLC and SFC column/guard	300110

Guard Cartridges

Description	For use with	Part No.
Analytical Guard Column Cartridges, 10 mm x 3.0 mm, Pkg. 5	4.0mmID and 4.6mmID standard-bore analytical columns Requires Holder (Part No. VC500100) for use	500101-XXX (XXX – please specify packing material)
Analytical Guard Column Cartridges, 10 mm x 2.0 mm, Pkg. 5	2.1mmID and 3.0mmID small-bore analytical columns Requires Holder (Part No. VC500100) for use	500103-XXX (XXX – please specify packing material)
Semi-Preparative Guard Column Cartridges, 10 mm x 10 mm, Pkg. 3	10mmID & 20mmID semi-preparative columns Requires Holder (Part No. 300120) for use	300121-XXX (XXX – please specify packing material)
Preparative Guard Cartridges, 10 mm x 20 mm, Pkg. 3	30mmID and 50mmID preparative columns Requires Holder (Part No. 300140) for use	300141-XXX (XXX – please specify packing material)

VINTAGE
BOND



Vintage Bond

Vintage Bond, Vintage Bond MU, Vintage ARO, and Vintage FSep columns represent a comprehensive and modern portfolio of HPLC solutions, each engineered to address a wide range of analytical challenges. Vintage Bond columns are built on ultra-high purity, metal-free silica with proprietary high-density monomeric bonding, providing exceptional pH stability, improved peak shapes, and reproducibility. Available in a variety of surface areas and scalable from microbore to preparative formats, the Vintage Bond line covers a broad spectrum of stationary phase chemistries—including C18, C8, shorter alkyl chains, HILIC, Cyano, Amine, Aqua-stable, and advanced polar phases—making them ideal for demanding method development and routine separations across pharmaceuticals, environmental, and life science applications. Every column undergoes strict quality control to ensure robust performance over a wide pH range and with diverse sample types.

Complementing this, Vintage Bond MU phases, utilize a multi-step process with proprietary multiple endcapping, resulting in highly base-deactivated, inert columns well-suited for acids, bases, and orthogonal selectivity needs. These use a lower surface area silica for alternative retention profiles and are especially valuable for legacy USP methods, amines, acids, and specialized applications like petroleum and ion-exchange analysis. The portfolio is further enhanced by Vintage ARO aromatic chemistries, which leverage π - π interactions for aromatic and conjugated systems, and Vintage FSep fluorinated phases, which offer low-bleed, LC-MS compatible options for trace analysis and unique selectivity with halogenated or fluorinated compounds. Together, these lines ensure chromatographers have access to a toolkit that delivers proven performance, scalability, and reproducibility—solving virtually any separation challenge with confidence and flexibility.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Features and Benefits

- Ultra-high purity silica for improved peak shape, especially for basic compounds
- Extensive range of stationary phase chemistries with innovative bonding chemistry to enhance method development
- High density bonding produces columns with better pH stability, increased sample loading and better lot-to-lot reproducibility
- Extended pH stability across commonly used mobile phase buffers
- Microbore to preparative dimensions available to allow flexibility and full scalability

Material Characteristics

Brand	Phase	Particle Size (μm)	Pore Size ($\text{\AA}$)	Carbon %	End Cap	pH Range	USP Code
Vintage Bond	Aqua	3, 5, 10	100	16	No	1-10	L7
Vintage Bond	C18	3, 5, 10	100	12	No	1-10	L1
Vintage Bond	Amino Cyano	3, 5, 10	60, 100		No	1-10	L18
Vintage Bond	C2	5, 10	60		No	1-10	L16
Vintage Bond	C6	3, 5	60	6	No	1-10	L15
Vintage Bond	MC18	3, 5, 10	100	18	Yes	1-10	L1
Vintage Bond	PSC C8/C18	3.5, 10	100	14	Yes	1-10	L42
Vintage Bond	UL C18	3, 5, 10	100	12	Yes	1-10	L1
Vintage Bond	UL C8	3, 5, 10	80	12	Yes	1-10	L7
Vintage Bond	Amine HD	1.8, 3, 5, 10	60, 100, 200		No	1-10	L8
Vintage Bond	C18	1.8, 3, 5, 10	120	18	Yes	1-10	L1

Brand	Phase	Particle Size (µm)	Pore Size (Å)	Carbon %	End Cap	pH Range	USP Code
Vintage Bond	C18 MS	1.8, 3, 5, 10	120	22	No	1-10	L1
Vintage Bond	C18 SD	1.8, 3, 5, 10	120	25	Yes	1-10	
Vintage Bond	C4 SD	1.8, 3, 5, 10	120	12	Yes	1-10	L26
Vintage Bond	C8	1.8, 3, 5, 10	120	10	Yes	1-10	L7
Vintage Bond	Cyano	1.8, 3, 5, 10	120		No	1-10	L10
Vintage Bond	Diol	1.8, 3, 5, 10	60, 120		No	1-10	L20
Vintage Bond	Polar	1.8, 3, 5, 10	120	18	No	1-10	L1
Vintage Bond	Silica	1.8, 3, 5, 10	120			1-10	L3
Vintage Bond	Si60	3, 5	60, 100			1-10	
Vintage Bond MU	C18	1.8, 3, 5, 7, 10	120	16	Yes	1-10	L1
Vintage Bond MU	C4	3, 5, 10	120	5	Yes	1-10	L26
Vintage Bond MU	C8	3, 5, 10	120		No	1-10	L7
Vintage Bond MU	Cyano	3, 5, 10	120		No	1-10	L10
Vintage Bond HILIC	HILIC FL	1.8, 3, 5, 10	120			1-10	
Vintage Bond HILIC	HILIC RP	1.8, 3, 5, 10	120			1-10	
Vintage Bond HILIC	HILIC PI	1.8, 3, 5, 10	120			1-10	
Vintage Bond HILIC	HILIC POH	1.8, 3, 5, 10	120			1-10	
Vintage Bond HILIC	HILIC Silica	1.8, 3, 5, 10	120			1-10	
Vintage Bond Petro	DNAP	5	100		No	1-10	
Vintage Bond Petro	DNAP2	5	100		No	1-10	
Vintage Bond Petro	Rsep	5, 10	60		No	1-10	
Vintage Bond	RP-SCX/IPI	5, 10	60, 200		No	1-10	L44

*Preparative columns of these phases are also available. Please enquire for more details at USSales@vintagechrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

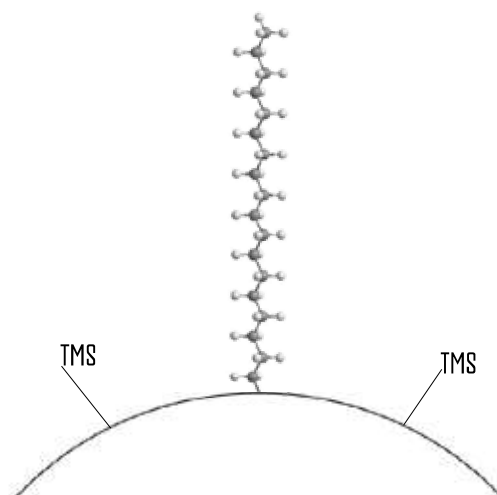
Vintage ARO

Vintage FSep

Equivalent

Vintage Bond C18

Vintage Bond C18 features a highly inert stationary phase achieved through advanced base deactivation and dense bonding ($>4 \mu\text{mol}/\text{m}^2$). This results in excellent peak shapes—even for challenging analytes—and robust performance across a broad pH range. Vintage Bond C18 delivers outstanding selectivity and reproducibility for a wide spectrum of compounds, making it the go-to choice for reversed-phase HPLC and UHPLC analysis of small molecules. Suitable for basic, neutral, and acidic analytes, Vintage Bond C18 is the versatile workhorse for demanding reversed-phase applications.



Phase	Length (mm)	ID (mm)	Particle Size (μm)	Part No.
Vintage Bond C18	50	2.1	1.8	512A91-C18
Vintage Bond C18	50	2.1	3	112191-C18
Vintage Bond C18	50	2.1	5	112291-C18
Vintage Bond C18	50	3.0	1.8	513A91-C18
Vintage Bond C18	50	4.6	3	115191-C18
Vintage Bond C18	75	4.6	5	115291-C18
Vintage Bond C18	100	4.6	3	195191-C18
Vintage Bond C18	100	2.1	1.8	522A91-C18
Vintage Bond C18	100	2.1	3	122191-C18
Vintage Bond C18	100	2.1	5	122291-C18
Vintage Bond C18	100	3.0	1.8	523A91-C18
Vintage Bond C18	100	3.0	3	123191-C18
Vintage Bond C18	100	4.6	3	125191-C18
Vintage Bond C18	125	4.6	5	125291-C18
Vintage Bond C18	150	4.6	5	105291-C18
Vintage Bond C18	150	2.1	1.8	532A91-C18
Vintage Bond C18	150	2.1	3	132191-C18
Vintage Bond C18	150	2.1	5	132291-C18
Vintage Bond C18	150	3.0	1.8	533A91-C18
Vintage Bond C18	150	3.0	3	133191-C18
Vintage Bond C18	150	3.9	5	13e291-C18
Vintage Bond C18	150	4.0	3	134191-C18
Vintage Bond C18	150	4.0	5	134291-C18
Vintage Bond C18	150	4.6	3	135191-C18
Vintage Bond C18	150	4.6	5	135291-C18

Other column dimensions and guard cartridges are available.
Please enquire for more details at LCSales@VintageChrom.com

Phase	Length (mm)	ID (mm)	Particle Size (μm)	Part No.
Vintage Bond C18	200	4.6	5	145291-C18
Vintage Bond C18	200	5.0	5	146291-C18
Vintage Bond C18	250	4.0	10	154391-C18
Vintage Bond C18	250	4.0	5	154291-C18
Vintage Bond C18	250	4.6	10	155391-C18
Vintage Bond C18	250	4.6	3	155191-C18
Vintage Bond C18	250	4.6	5	155291-C18
Vintage Bond C18	300	3.9	10	16e391-C18
Vintage Bond C18	300	4.0	10	164391-C18
Vintage Bond C18	300	4.0	5	164291-C18
Vintage Bond C18	300	4.6	3	165191-C18
Vintage Bond C18	300	4.6	5	165291-C18
Vintage Bond C18 Prep	50	30	10	11N391-C18
Vintage Bond C18 Prep	50	50	5	11F291-C18
Vintage Bond C18 Prep	100	20	5	128291-C18
Vintage Bond C18 Prep	150	10	5	137291-C18
Vintage Bond C18 Prep	250	10	5	157291-C18
Vintage Bond C18 Prep	250	20	5	158291-C18
Vintage Bond C18 Prep	250	30	10	15N391-C18
Vintage Bond C18 Prep	250	30	5	15N291-C18
Vintage Bond C18 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at LCSales@VintageChrom.com

Vintage Bond

Vintage B10

Vintage SEC

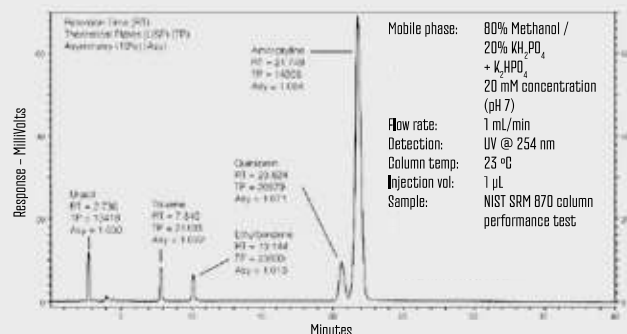
Vintage SFC

Vintage AR0

Vintage FSep

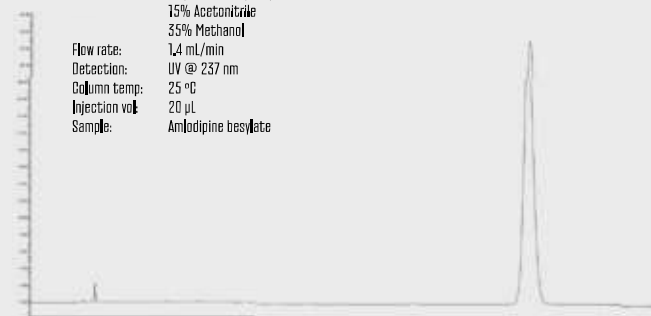
Equivalent

HPLC analysis of NIST SRM 870 column performance test using Vintage Bond C18, 250 x 4.6 mm, 5 µm.



HPLC analysis of amlodipine besylate using Vintage Bond C18, 250 x 4.6 mm, 5 µm.

Mobile phase: 50% Buffer (Triethylamine in water adjusted to pH 3.0 with phosphoric acid)
15% Acetonitrile
35% Methanol
Flow rate: 1.4 mL/min
Detection: UV @ 237 nm
Column temp: 25 °C
Injection vol: 20 µL
Sample: Amlodipine besylate



HPLC analysis of ginsenosides (Rg1, Re and Rb1) using Vintage Bond C18

Peak Identification

1. Ginsenoside Rg1

2. Ginsenoside Re

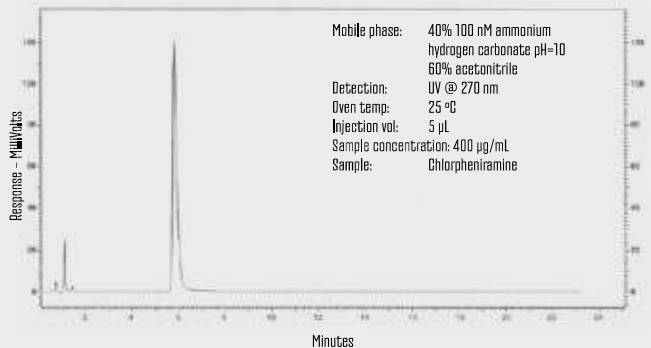
3. Ginsenoside Rb1

Solvent A: Acetonitrile
Solvent B: Water
Time (mins) %B
0 81
35 81
55 71
70 71
100 60
Flow rate: 1 mL/min
Detection: UV @ 203 nm
Injection vol: 10 µL
Column temp: 25 °C



HPLC analysis of chlorpheniramine antihistamine at pH 10 using Vintage Bond C18, 150 x 4.6 mm, 5 µm.

Mobile phase: 40% 100 mM ammonium hydrogen carbonate pH=10
60% acetonitrile
Detection: UV @ 270 nm
Oven temp: 25 °C
Injection vol: 5 µL
Sample concentration: 400 µg/mL
Sample: Chlorpheniramine



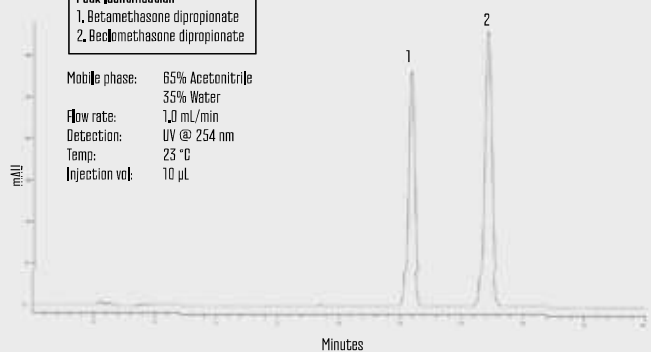
HPLC analysis of betamethasone dipropionate using Vintage Bond C18, 250 x 4.6 mm, 5 µm.

Peak Identification

1. Betamethasone dipropionate

2. Betamethasone dipropionate

Mobile phase: 65% Acetonitrile
35% Water
Flow rate: 1.0 mL/min
Detection: UV @ 254 nm
Temp: 23 °C
Injection vol: 10 µL



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

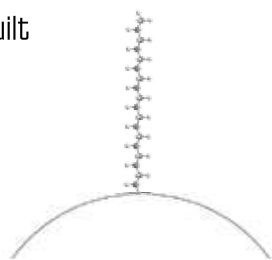
Vintage ARO

Vintage FSep

Equivalent

Vintage Bond C18 MS

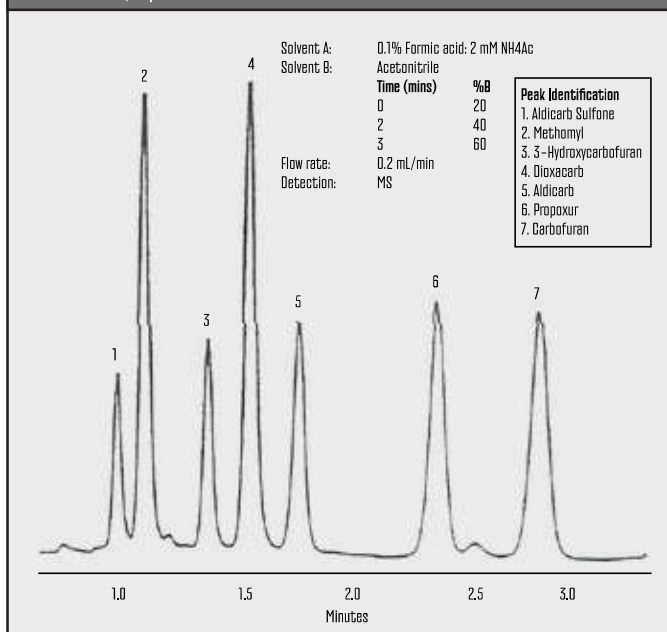
Vintage Bond C18 MS is purpose-built to meet the rigorous demands of LC-MS analysis. Utilizing a high-density bonding process, this phase maximizes stationary phase-analyte interactions, supporting a broad range of flexible mobile phase compositions. Vintage Bond C18 MS delivers strong retention, even under highly organic mobile phase conditions—ideal for LC-MS workflows that require elevated levels of organic modifiers. Its robust design ensures high sensitivity and reliable detection for trace-level analyses. Fully compatible with all common LC-MS mobile phases and buffer systems, Vintage Bond C18 MS is the optimal choice for high-performance LC-MS applications.



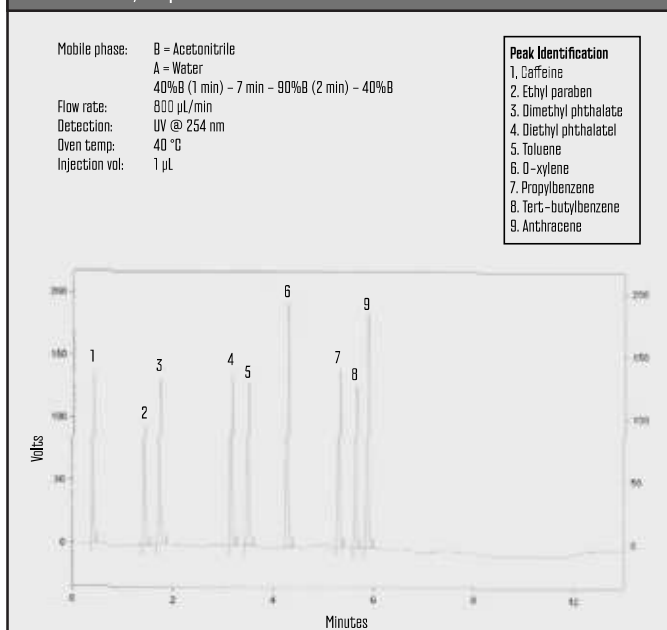
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond C18 MS	50	2.1	1.8	512A91-C18-MS
Vintage Bond C18 MS	50	2.1	3	112191-C18-MS
Vintage Bond C18 MS	50	2.1	5	112291-C18-MS
Vintage Bond C18 MS	50	4.6	3	115191-C18-MS
Vintage Bond C18 MS	50	4.6	5	115291-C18-MS
Vintage Bond C18 MS	100	2.1	1.8	522A91-C18-MS
Vintage Bond C18 MS	100	2.1	3	122191-C18-MS
Vintage Bond C18 MS	100	2.1	5	122291-C18-MS
Vintage Bond C18 MS	100	3.0	1.8	523A91-C18-MS
Vintage Bond C18 MS	100	4.6	3	125191-C18-MS
Vintage Bond C18 MS	100	4.6	5	125291-C18-MS
Vintage Bond C18 MS	150	2.1	3	132191-C18-MS
Vintage Bond C18 MS	150	2.1	5	132291-C18-MS
Vintage Bond C18 MS	150	4.0	5	134291-C18-MS
Vintage Bond C18 MS	150	4.6	3	135191-C18-MS
Vintage Bond C18 MS	150	4.6	5	135291-C18-MS
Vintage Bond C18 MS	250	4.6	10	155391-C18-MS
Vintage Bond C18 MS	250	4.6	5	155291-C18-MS
Vintage Bond C18 MS Prep	250	20	5	158291-C18-M
Vintage Bond C18 MS Prep	250	30	5	15N291-C18-MS
Vintage Bond C18 MS Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C18-MS
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LCSales@VintageChrom.com

HPLC analysis of N-methyl carbamates using Vintage Bond C18 MS, 50 x 2.1 mm, 5 µm.



HPLC analysis of various compounds using Vintage Bond C18 MS, 100 x 2.1 mm, 1.8 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond C18 SD

Vintage Bond C18 SD is a highly base-deactivated, high-carbon, super-dense (SD) phase engineered through a multi-step bonding process. The first stage involves high-density bonding of monomeric C18 groups to the silica surface, followed by a proprietary multi-step endcapping procedure that ensures exceptional base deactivation. Our base deactivation tests highlight the superior inertness achieved with this column. As a result of this advanced bonding technology, Vintage Bond C18 SD offers outstanding hydrophobicity and chemical inertness, making it ideally suited for the reliable analysis of both acidic and basic compounds

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond C18 SD	50	2.1	1.8	512A91-C18SD
Vintage Bond C18 SD	50	2.1	3	112191-C18SD
Vintage Bond C18 SD	50	2.1	5	112291-C18SD
Vintage Bond C18 SD	50	4.6	3	115191-C18SD
Vintage Bond C18 SD	50	4.6	5	115291-C18SD
Vintage Bond C18 SD	100	2.1	1.8	522A91-C18SD
Vintage Bond C18 SD	100	2.1	3	122191-C18SD
Vintage Bond C18 SD	100	2.1	5	122291-C18SD
Vintage Bond C18 SD	100	3.0	1.8	523A91-C18SD
Vintage Bond C18 SD	100	4.6	3	125191-C18SD
Vintage Bond C18 SD	100	4.6	5	125291-C18SD
Vintage Bond C18 SD	150	2.1	3	132191-C18SD
Vintage Bond C18 SD	150	2.1	5	132291-C18SD
Vintage Bond C18 SD	150	4.0	5	134291-C18SD
Vintage Bond C18 SD	150	4.6	3	135191-C18SD
Vintage Bond C18 SD	150	4.6	5	135291-C18SD
Vintage Bond C18 SD	250	4.6	10	155391-C18SD
Vintage Bond C18 SD	250	4.6	5	155291-C18SD
Vintage Bond C18 SD Prep	250	20	5	158291-C18SD
Vintage Bond C18 SD Prep	250	30	5	15N291-C18SD
Vintage Bond C18 SD Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C18SD
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: LCSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

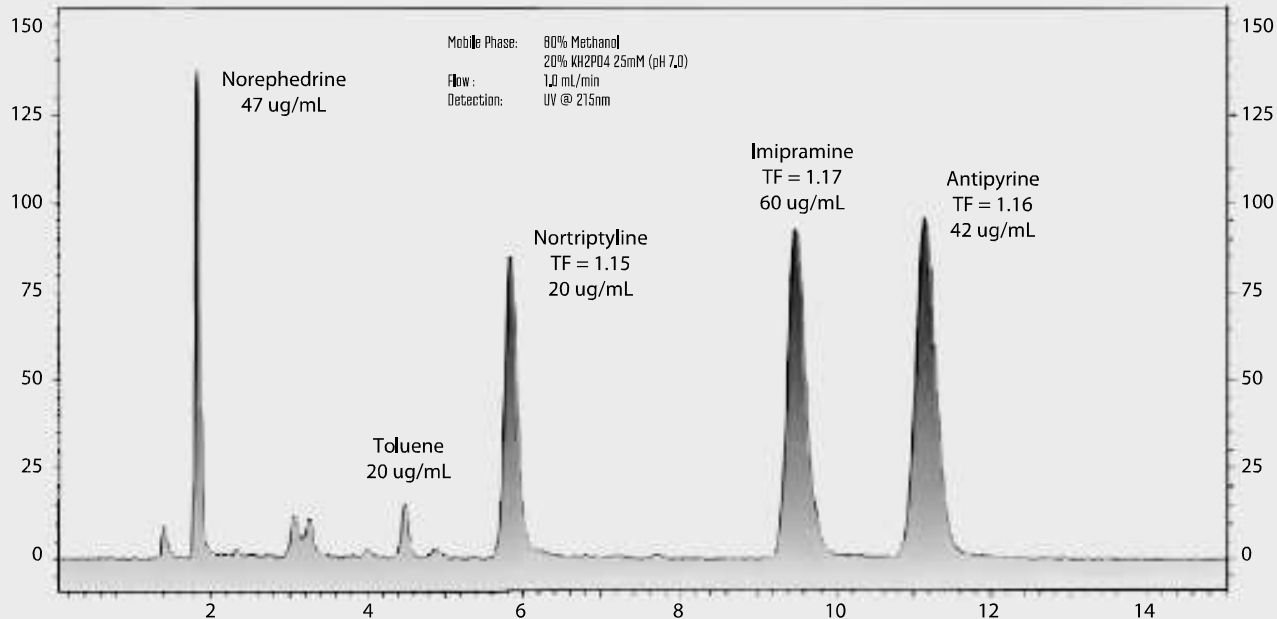
Vintage SFC

Vintage AR0

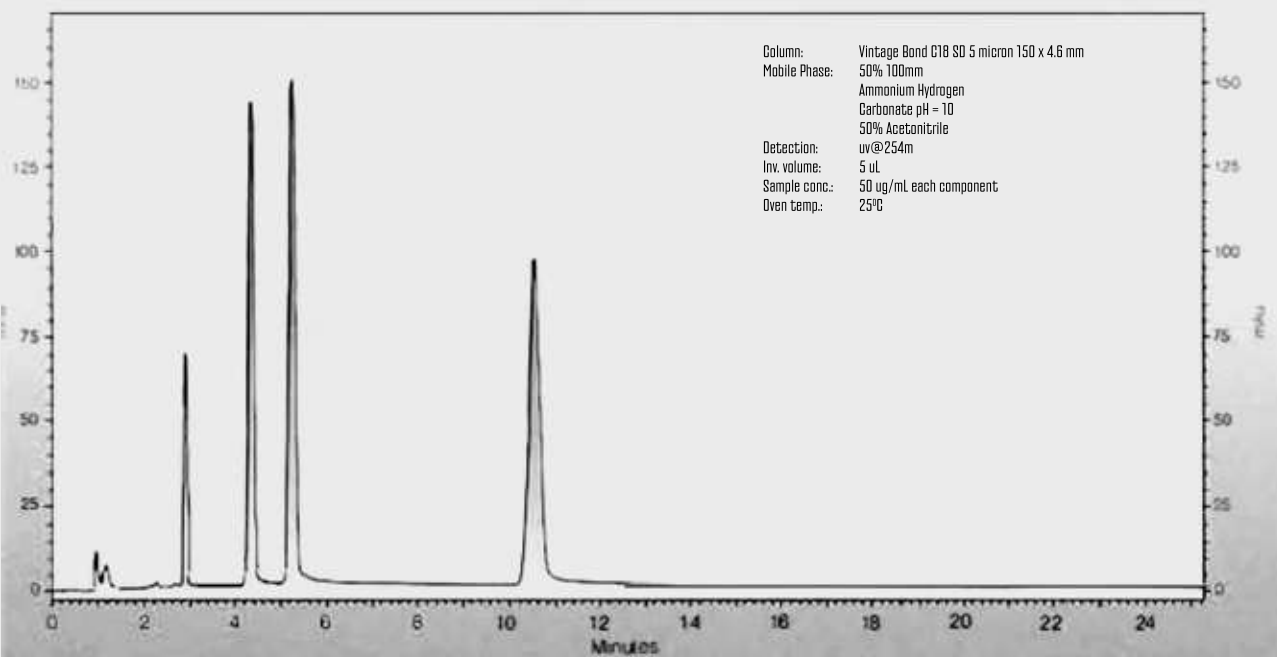
Vintage FSep

Equivalent

Base Deactivation Test with Tricyclic Antidepressants using Vintage Bond C18 SD 150x4.6mm



Anilines at pH10 using Vintage Bond C18 SD 150x4.6mm 5um



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond MU C18

Vintage Bond MU C18 is a highly base-deactivated, multi-use C18 phase created through a proprietary multi-step bonding process. This process begins by bonding C18 groups to ultra-high purity, synthetically produced spherical silica, followed by advanced multiple endcapping using short-chain alkyl silanes to neutralize residual silanol groups. The result is a column that is both highly hydrophobic and exceptionally inert, making it ideal for analyzing acids, bases, and molecules containing both polar and hydrophobic groups. Its unique silica, with a lower surface area compared to conventional C18 columns, imparts distinct retention and selectivity characteristics, providing chromatographers with an alternative selectivity profile for more complex separations.

As a true multi-use column, Vintage Bond MU C18 is particularly effective for a wide range of sample types, including amines and acids, and is especially useful when method development requires both versatility and reliability. It serves as an excellent alternative to Vintage Bond C18, offering robust performance and compatibility with a wide range of analytes and mobile phase conditions, making it a valuable tool for laboratories seeking a single-column solution for diverse reversed-phase HPLC applications.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond MU C18	50	2.1	1.8	512A91-C18MU
Vintage Bond MU C18	50	2.1	3	112191-C18MU
Vintage Bond MU C18	50	2.1	5	112291-C18MU
Vintage Bond MU C18	50	3.0	3	113191-C18MU
Vintage Bond MU C18	50	3.0	5	113291-C18MU
Vintage Bond MU C18	50	4.6	10	115391-C18MU
Vintage Bond MU C18	50	4.6	3	115191-C18MU
Vintage Bond MU C18	50	4.6	5	115291-C18MU
Vintage Bond MU C18	100	2.1	3	122191-C18MU
Vintage Bond MU C18	100	2.1	5	122291-C18MU
Vintage Bond MU C18	100	3.0	3	123191-C18MU
Vintage Bond MU C18	100	4.0	3	124191-C18MU
Vintage Bond MU C18	100	4.0	5	124291-C18MU
Vintage Bond MU C18	100	4.6	10	125391-C18MU
Vintage Bond MU C18	100	4.6	3	125191-C18MU
Vintage Bond MU C18	100	4.6	5	125291-C18MU
Vintage Bond MU C18	120	4.6	5	105291-C18MU
Vintage Bond MU C18	125	3.0	5	103291-C18MU
Vintage Bond MU C18	125	4.0	5	104291-C18MU
Vintage Bond MU C18	125	4.0	7	104491-C18MU
Vintage Bond MU C18	125	4.6	3	105191-C18MU
Vintage Bond MU C18	125	4.6	5	105291-C18MU

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond MU C18	125	4.6	7	105491-C18MU
Vintage Bond MU C18	150	2.1	3	132191-C18MU
Vintage Bond MU C18	150	2.1	5	132291-C18MU
Vintage Bond MU C18	150	3.9	10	13e391-C18MU
Vintage Bond MU C18	150	3.9	5	13e291-C18MU
Vintage Bond MU C18	150	4.0	5	134291-C18MU
Vintage Bond MU C18	150	4.0	10	135391-C18MU
Vintage Bond MU C18	150	4.6	3	135191-C18MU
Vintage Bond MU C18	150	4.6	5	135291-C18MU
Vintage Bond MU C18	200	4.6	7	144491-C18MU
Vintage Bond MU C18	250	2.1	5	153291-C18MU
Vintage Bond MU C18	250	2.1	5	154291-C18MU
Vintage Bond MU C18	250	3.9	10	155391-C18MU
Vintage Bond MU C18	250	3.9	3	155191-C18MU
Vintage Bond MU C18	250	4.0	5	155291-C18MU
Vintage Bond MU C18	300	4.6	10	16e391-C18MU
Vintage Bond MU C18	300	4.6	5	16e291-C18MU
Vintage Bond MU C18	300	4.6	10	164391-C18MU
Vintage Bond MU C18	300	4.0	5	164291-C18MU
Vintage Bond MU C18	300	3.0	10	165391-C18MU
Vintage Bond MU C18	300	4.0	5	165291-C18MU
Vintage Bond MU C18	300	4.6	7	164491-C18MU
Vintage Bond MU C18 Prep	150	30	10	13N391-C18MU
Vintage Bond MU C18 Prep	150	50	5	13F291-C18MU
Vintage Bond MU C18 Prep	250	10	10	157391-C18MU
Vintage Bond MU C18 Prep	250	10	5	157291-C18MU
Vintage Bond MU C18 Prep	250	20	10	158391-C18MU
Vintage Bond MU C18 Prep	250	20	5	158291-C18MU
Vintage Bond MU C18 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C18MU
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

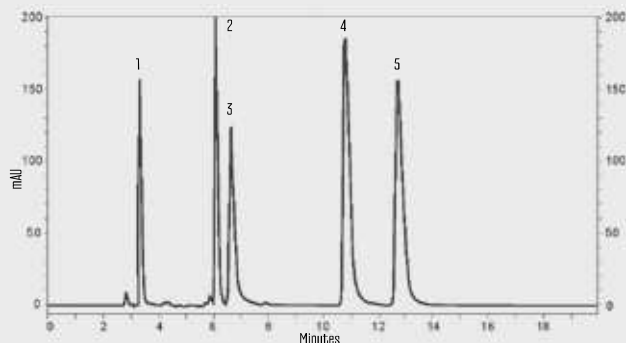
Equivalent

HPLC analysis of a tricyclic antidepressants using Vintage Bond MU C18, 250 x 4.6 mm, 5 µm

Peak Identification

1. Norephedrine	47 µg/mL
2. Toluene	133 µg/mL
3. Nortriptyline	20 µg/mL
4. Imipramine	60 µg/mL
5. Amitriptyline	42 µg/mL

Mobile phase: 80% methanol
20% KH₂PO₄ 25 mM
pH = 6.8
Flow rate: 1.0 mL/min
Detection: UV @ 215 nm
Injection vol: 5 µL

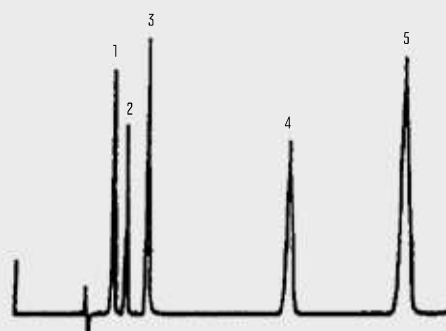


HPLC analysis of drug related molecules using Vintage Bond MU C18, 250 x 4.6 mm, 5 µm.

Peak Identification

1. Acetylsalicylic acid
2. p-Acetophenetidine
3. Salicylic acid
4. Phenylbutazone
5. Indomethacin

Mobile phase: 70% Methanol
30% 4 mM KH₂PO₄
pH = 3
Flow rate: 1.0 mL/min
Detection: UV @ 254 nm

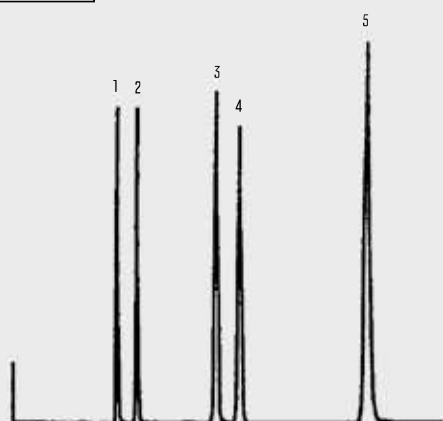


HPLC analysis of anilines and neutrals using Vintage Bond MU C18, 250 x 4.6 mm, 5 µm.

Peak Identification

1. Aniline
2. Dimethyl Phthalate
3. Dimethylaniline
4. Toluene
5. Diethylaniline

Mobile phase: 65% Acetonitrile
35% Water
Flow rate: 1.0 mL/min
Detection: UV @ 254 nm

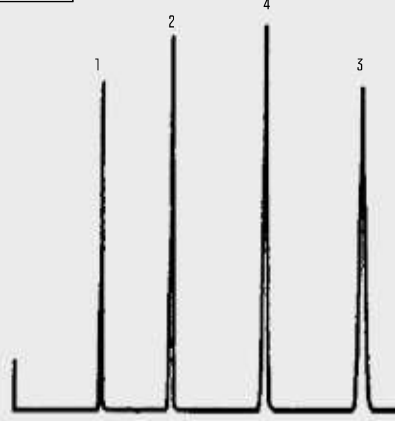


HPLC analysis of a substituted anilines and phenol using Vintage Bond MU C18, 250 x 4.6 mm, 5 µm.

Peak Identification

1. Phenol
2. Dimethylaniline
3. Diethylaniline
4. Di-N-Butyl Phthalate

Mobile phase: 70% Acetonitrile
30% Water
Flow rate: 1.0 mL/min
Detection: UV @ 254 nm



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond Mono C18

Vintage Bond Mono C18 columns are based on octadecyl (C18) bonding to high-purity, synthetically produced spherical silica with a 60 Å pore size. This phase delivers reproducible separations with excellent peak symmetry and is particularly effective for both hydrophobic and polar low molecular weight molecules. Thanks to its smaller pore size, Vintage Bond Mono C18 offers alternative selectivity compared to conventional C18 columns, making it a valuable choice for method development and for applications where unique retention characteristics are desired. This versatility allows it to perform reliably in the analysis of pharmaceuticals, environmental samples, and other challenging analytes that benefit from a distinct selectivity profile.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Mono C18	50	2.1	5	112211-M0C18
Vintage Bond Mono C18	50	3.0	3	113123-M0C18
Vintage Bond Mono C18	100	2.1	3	122171-M0C18
Vintage Bond Mono C18	100	2.1	5	122211-M0C18
Vintage Bond Mono C18	100	4.0	10	124311-M0C18
Vintage Bond Mono C18	100	4.0	3	124111-M0C18
Vintage Bond Mono C18	100	4.6	5	125211-M0C18
Vintage Bond Mono C18	150	2.1	5	132211-M0C18
Vintage Bond Mono C18	150	3.9	5	13e211-M0C18
Vintage Bond Mono C18	150	4.0	10	134311-M0C18
Vintage Bond Mono C18	150	4.0	5	134211-M0C18
Vintage Bond Mono C18	150	4.6	5	135211-M0C18
Vintage Bond Mono C18	250	4.0	5	154221-M0C18
Vintage Bond Mono C18	250	4.6	10	155311-M0C18
Vintage Bond Mono C18	250	4.6	5	155211-M0C18
Vintage Bond Mono C18	300	4.0	10	164311-M0C18
Vintage Bond Mono C18	300	4.0	5	164221-M0C18
Vintage Bond Mono C18	300	4.6	10	165311-M0C18
Vintage Bond Mono C18 Prep	250	10	5	157211-M0C18
Vintage Bond Mono C18 Prep	250	20	5	158211-M0C18
Vintage Bond Mono C18 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-M0C18
Vintage Bond Mono C18 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-M0C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LSales@VintageChrom.com

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Mono C8	50	2.1	5	112211-M0C8
Vintage Bond Mono C8	50	3.0	3	113123-M0C8
Vintage Bond Mono C8	100	2.1	3	122171-M0C8
Vintage Bond Mono C8	100	2.1	5	122211-M0C8
Vintage Bond Mono C8	100	4.0	10	124311-M0C8
Vintage Bond Mono C8	100	4.0	3	124111-M0C8
Vintage Bond Mono C8	100	4.6	5	125211-M0C8
Vintage Bond Mono C8	150	2.1	5	132211-M0C8
Vintage Bond Mono C8	150	3.9	5	13e211-M0C8
Vintage Bond Mono C8	150	4.0	10	134311-M0C8
Vintage Bond Mono C8	150	4.0	5	134211-M0C8
Vintage Bond Mono C8	150	4.6	5	135211-M0C8
Vintage Bond Mono C8	250	4.0	5	154221-M0C8
Vintage Bond Mono C8	250	4.6	10	155311-M0C8
Vintage Bond Mono C8	250	4.6	5	155211-M0C8
Vintage Bond Mono C8	300	4.0	10	164311-M0C8
Vintage Bond Mono C8	300	4.0	5	164221-M0C8
Vintage Bond Mono C8	300	4.6	10	165311-M0C8
Vintage Bond Mono C8 Prep	250	10	5	157211-M0C8
Vintage Bond Mono C8 Prep	250	20	5	158211-M0C8
Vintage Bond Mono C8 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-M0C8
Vintage Bond Mono C8 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-M0C8
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LSales@VintageChrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Vintage Bond Pharm Sep C8/C18

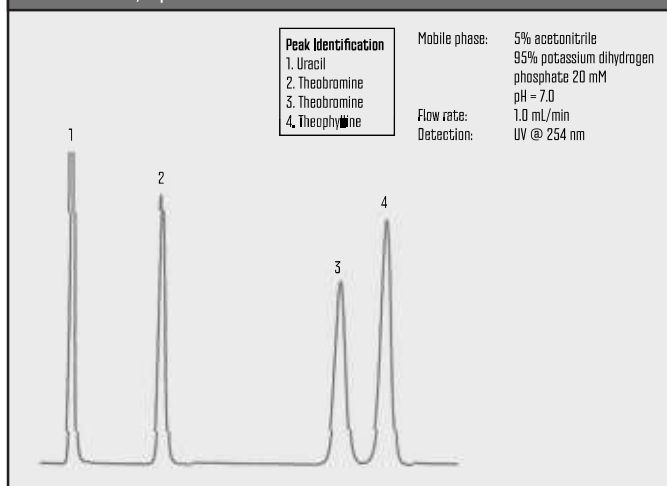
Vintage Bond Pharm Sep C8/C18 is a unique stationary phase that combines both C8 and C18 ligands, offering exceptional versatility for a wide range of pharmaceutical applications. Prepared using a proprietary bonding process that blends C8 and C18 groups, this phase also incorporates technology to tightly control the number of residual silanol groups on the silica surface. As a result, the column provides robust retention and separation of both highly polar and hydrophobic compounds, functioning effectively as either a C8 or C18 phase depending on the application.

This dual selectivity makes Vintage Bond Pharm Sep C8/C18 an ideal choice for the analysis of multicomponent drugs, including active pharmaceutical ingredients, excipients, and degradation products, all within a single run. Its advanced surface engineering minimizes secondary interactions, ensuring reliable performance for basic, acidic, and neutral compounds. Laboratories benefit from its broad compatibility with diverse pharmaceutical formulations and its ability to streamline method development and quality control workflows by replacing the need for separate C8 and C18 columns.

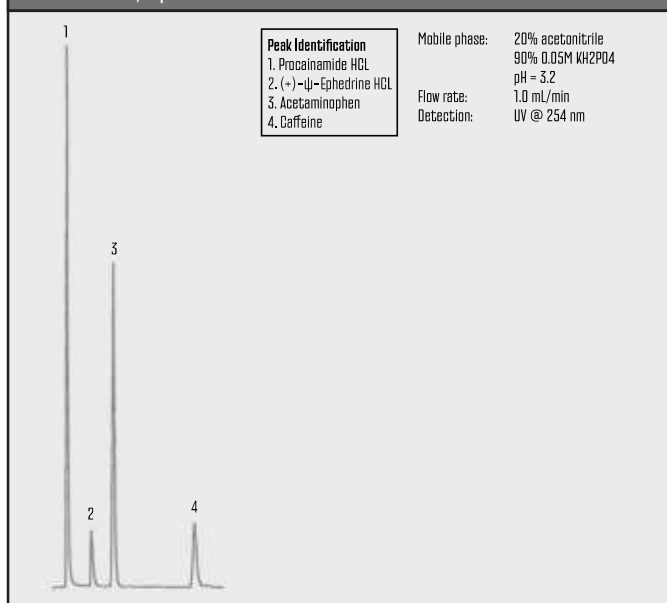
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Pharm Sep C8/C18	50	2.1	3	112121-PSC8/C18
Vintage Bond Pharm Sep C8/C18	50	2.1	5	112221-PSC8/C18
Vintage Bond Pharm Sep C8/C18	100	2.1	3	122121-PSC8/C18
Vintage Bond Pharm Sep C8/C18	100	2.1	5	122221-PSC8/C18
Vintage Bond Pharm Sep C8/C18	100	3.0	5	123221-PSC8/C18
Vintage Bond Pharm Sep C8/C18	100	4.6	3	125121-PSC8/C18
Vintage Bond Pharm Sep C8/C18	100	4.6	5	125221-PSC8/C18
Vintage Bond Pharm Sep C8/C18	150	2.1	3	132121-PSC8/C18
Vintage Bond Pharm Sep C8/C18	150	2.1	5	132221-PSC8/C18
Vintage Bond Pharm Sep C8/C18	150	4.6	3	135121-PSC8/C18
Vintage Bond Pharm Sep C8/C18	150	4.6	5	135221-PSC8/C18
Vintage Bond Pharm Sep C8/C18	250	4.0	5	154221-PSC8/C18
Vintage Bond Pharm Sep C8/C18	250	4.6	5	155221-PSC8/C18
Vintage Bond Pharm Sep C8/C18 Prep	250	10	5	157221-PSC8/C18
Vintage Bond Pharm Sep C8/C18 Prep	250	20	5	158221-PSC8/C18
Vintage Bond Pharm Sep C8/C18 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-PSC8/C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LSales@VintageChrom.com

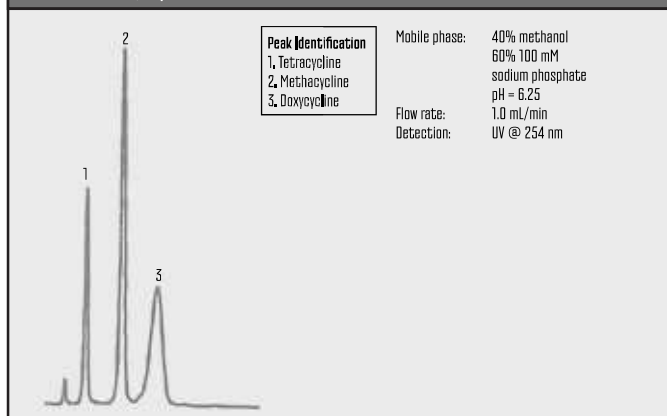
HPLC analysis of stimulants using Vintage Bond Pharm Sep C8/C18, 150 x 4.6 mm, 5 µm.



HPLC analysis of pharmaceuticals using Vintage Bond Pharm Sep C8/C18, 150 x 4.6 mm, 5 µm.



HPLC analysis of antibiotics using Vintage Bond Pharm Sep C8/C18, 150 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond C2

Vintage Bond C2 columns (USP L16) are based on dimethyl bonding to high-purity spherical silica, producing high-performance packed columns ideal for a variety of pharmaceutical applications. This phase can be used for any USP assay that specifies an L16 column and is often selected as an alternative to the Altmann Analytik LiChrosorb® RP-2. The dimethyl functional group provides reliable retention and separation for low molecular weight compounds. Vintage Bond C2 is particularly well-suited for the analysis of temazepam capsules (used in the treatment of insomnia), as well as cyclosporine injection and oral solutions (an immunosuppressant drug), delivering consistent results and excellent peak symmetry for these and other applications requiring a USP L16 column.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond C2	50	2.1	5	112211-C2
Vintage Bond C2	100	2.1	5	122211-C2
Vintage Bond C2	100	4.6	5	125211-C2
Vintage Bond C2	150	2.1	5	132211-C2
Vintage Bond C2	150	4.0	5	134211-C2
Vintage Bond C2	150	4.6	5	135211-C2
Vintage Bond C2	250	4.0	5	154211-C2
Vintage Bond C2	250	4.6	5	155211-C2
Vintage Bond C2	250	4.6	10	155311-C2
Vintage Bond C2	300	4.6	5	165211-C2
Vintage Bond C2	300	4.6	10	165311-C2
Vintage Bond C2 Prep	250	10	5	157211-C2
Vintage Bond C2 Prep	250	20	5	158211-C2
Vintage Bond C2 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-C2
Vintage Bond C2 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C2
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

Vintage Bond MU C4

Vintage Bond MU C4 is a highly base-deactivated C4 phase produced through a multi-step process that begins with bonding C4 groups to ultra-high purity, synthetically produced spherical silica. This is followed by a proprietary multiple endcapping procedure, resulting in columns with exceptional inertness and minimized secondary interactions. As the least hydrophobic of the alkyl phases (C18 and C8), Vintage Bond MU C4 is particularly well-suited for the analysis of lipophilic molecules and applications that require lower retention. Its balanced selectivity and robust bonding chemistry make it an excellent choice for laboratories seeking reliable performance for a variety of reversed-phase HPLC separations, especially when less hydrophobic interaction is desired.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond MU C4	50	2.1	3	112191-C4MU
Vintage Bond MU C4	50	2.1	5	112291-C4MU
Vintage Bond MU C4	50	4.6	3	115191-C4MU
Vintage Bond MU C4	100	2.1	3	122191-C4MU
Vintage Bond MU C4	100	2.1	5	122291-C4MU
Vintage Bond MU C4	100	4.6	3	125191-C4MU
Vintage Bond MU C4	100	4.6	5	125291-C4MU
Vintage Bond MU C4	150	2.1	3	132191-C4MU
Vintage Bond MU C4	150	2.1	5	132291-C4MU
Vintage Bond MU C4	150	4.6	3	135191-C4MU
Vintage Bond MU C4	150	4.6	5	135291-C4MU
Vintage Bond MU C4	250	4.6	5	155291-C4MU
Vintage Bond MU C4	300	4.0	5	164291-C4MU
Vintage Bond MU C4	300	4.6	5	165291-C4MU
Vintage Bond MU C4 Prep	150	50	5	13F291-C4MU
Vintage Bond MU C4 Prep	250	10	5	157291-C4MU
Vintage Bond MU C4 Prep	250	20	5	158291-C4MU
Vintage Bond MU C4 Prep	250	30	5	15N291-C4MU
Vintage Bond MU C4 Prep	50	20	5	118291-C4MU
Vintage Bond MU C4 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-C4MU
Vintage Bond MU C4 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C4MU
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

Vintage Bond

Vintage Bio

Vintage SEC

Vintage SFC

Vintage AR0

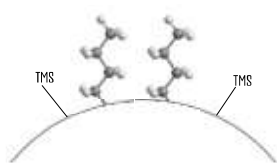
Vintage FSep

Equivalent

Vintage Bond C4 SD

Vintage Bond C4 SD is a highly base-deactivated, high-carbon, super-dense (SD) phase produced through a multi-step process.

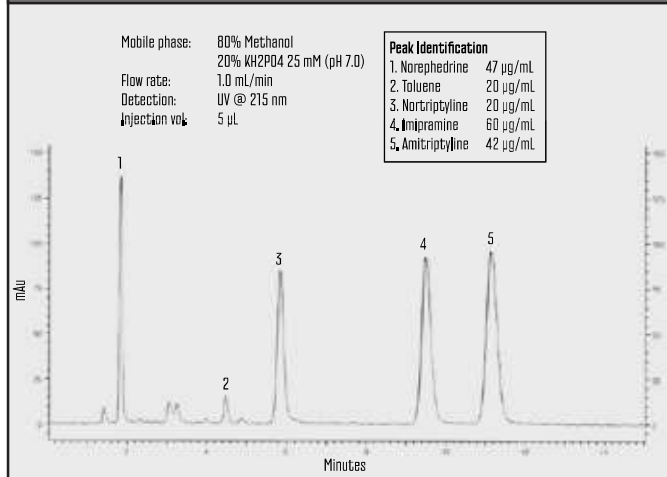
The initial stage involves high-density bonding of monomeric C4 groups, followed by a proprietary, multiple endcapping procedure that ensures exceptional base deactivation. Thanks to this advanced bonding treatment, Vintage Bond C4 SD offers high hydrophobicity and outstanding inertness, making it ideal for the analysis of both acidic and basic compounds. Its unique chemical structure ensures stable retention under highly aqueous conditions, without risk of phase collapse. As the least hydrophobic of the alkyl phases (C18 and C8), Vintage Bond C4 SD is particularly well-suited for lipophilic molecules and applications requiring reduced retention.



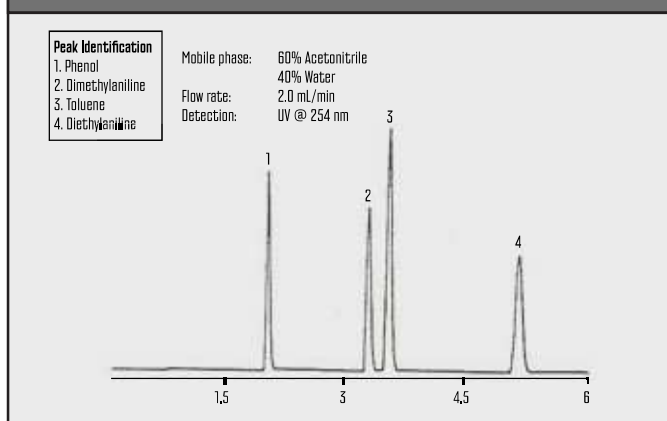
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond C4 SD	50	2.1	3	112191-C4SD
Vintage Bond C4 SD	50	2.1	5	112291-C4SD
Vintage Bond C4 SD	50	4.6	5	115291-C4SD
Vintage Bond C4 SD	100	2.1	3	122191-C4SD
Vintage Bond C4 SD	100	2.1	5	122291-C4SD
Vintage Bond C4 SD	100	3.0	3	123191-C4SD
Vintage Bond C4 SD	100	4.6	3	125191-C4SD
Vintage Bond C4 SD	125	2.1	3	102191-C4SD
Vintage Bond C4 SD	150	2.1	3	132191-C4SD
Vintage Bond C4 SD	150	2.1	5	132291-C4SD
Vintage Bond C4 SD	150	4.0	5	134291-C4SD
Vintage Bond C4 SD	150	4.6	3	135191-C4SD
Vintage Bond C4 SD	150	4.6	5	135291-C4SD
Vintage Bond C4 SD	250	4.6	5	155291-C4SD
Vintage Bond C4 SD Prep	250	20	5	158291-C4SD
Vintage Bond C4 SD Prep	250	30	10	15N391-C4SD
Vintage Bond C4 SD Prep	250	30	5	15N291-C4SD
Vintage Bond C4 SD Prep	250	50	10	15F391-C4SD
Vintage Bond C4 SD Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C4SD
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LSales@VintageChrom.com

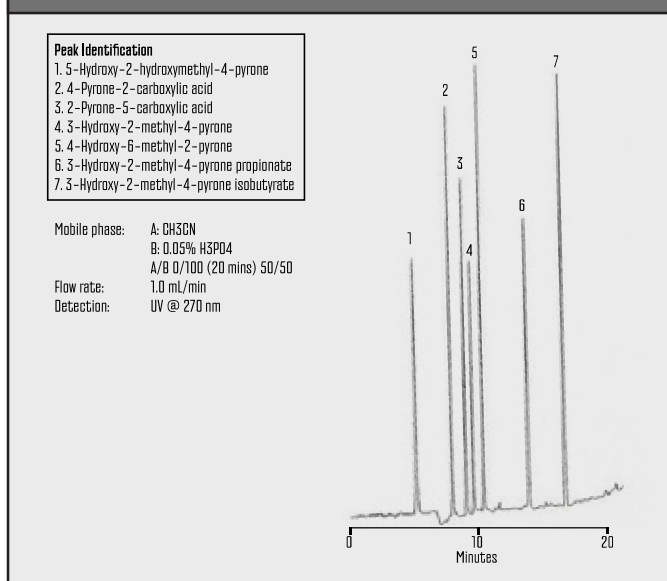
HPLC base deactivation test of tricyclic antidepressants using Vintage Bond C4 SD, 150 x 4.6 mm, 5 µm.



HPLC analysis of anilines using Vintage Bond C4 SD, 250 x 4.6 mm, 5 µm.



HPLC analysis of pyrones using Vintage Bond C4 SD, 150 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond C6

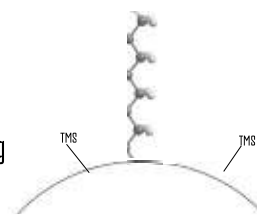
Vintage Bond C6 columns (USP L15) are based on hexyl bonding to high-purity spherical silica and are not endcapped, providing a distinct selectivity profile. These columns are ideal for pharmaceutical analyses that require a USP L15 column, such as the assay of Topiramate and its related compounds. The hexyl phase offers moderate hydrophobicity, making Vintage Bond C6 a versatile choice for separating a variety of analytes where traditional C8 or C18 columns may provide too much retention. Its robust construction ensures reliable performance and reproducibility for both routine quality control and method development in pharmaceutical and related applications.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond C6	50	2.1	5	112211-C6
Vintage Bond C6	100	2.1	5	122211-C6
Vintage Bond C6	100	4.6	5	125211-C6
Vintage Bond C6	150	2.1	5	132211-C6
Vintage Bond C6	150	4.0	3	134111-C6
Vintage Bond C6	150	4.0	5	134211-C6
Vintage Bond C6	150	4.6	5	135211-C6
Vintage Bond C6	250	4.6	5	155211-C6
Vintage Bond C6 Prep	250	20	5	158211-C6
Vintage Bond C6 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-C6
Vintage Bond C6 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C6
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at USSales@VintageChrom.com

Vintage Bond C8

Vintage Bond C8 is a highly base-deactivated phase that provides a highly inert stationary surface through advanced bonding technology. With high-density bonding levels ($>4 \mu\text{mol}/\text{m}^2$,



Vintage Bond C8 ensures excellent peak shapes for even the most demanding applications across a wide pH range. Compared to C18, the C8 phase is less hydrophobic, making it ideal for separations that require reduced retention. Vintage Bond C8 is particularly effective for analyzing more hydrophobic compounds, including both charged and neutral substances like lipids and steroids.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond C8	50	2.1	1.8	512A91-C8
Vintage Bond C8	50	2.1	3	112191-C8
Vintage Bond C8	50	2.1	5	112291-C8
Vintage Bond C8	50	3.0	3	113191-C8
Vintage Bond C8	50	4.6	5	115291-C8
Vintage Bond C8	100	2.1	1.8	522A91-C8
Vintage Bond C8	100	2.1	3	122191-C8
Vintage Bond C8	100	2.1	5	122291-C8
Vintage Bond C8	100	4.0	5	124291-C8
Vintage Bond C8	100	4.6	3	125191-C8
Vintage Bond C8	100	4.6	5	125291-C8
Vintage Bond C8	125	4.0	5	104291-C8
Vintage Bond C8	125	4.6	5	105291-C8
Vintage Bond C8	150	2.1	3	132191-C8
Vintage Bond C8	150	2.1	5	132291-C8
Vintage Bond C8	150	4.6	3	135191-C8
Vintage Bond C8	150	4.6	5	135291-C8
Vintage Bond C8	250	4.0	5	154291-C8
Vintage Bond C8	250	4.6	10	155391-C8
Vintage Bond C8	250	4.6	5	155291-C8
Vintage Bond C8	300	4.6	5	165291-C8
Vintage Bond C8 Prep	250	20	5	158291-C8
Vintage Bond C8 Prep	250	30	5	15N291-C8
Vintage Bond C8 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C8
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at USSales@VintageChrom.com

Vintage Bond

Vintage Bio

Vintage SEC

Vintage SFC

Vintage AR0

Vintage ESep

Equivalent

Vintage Bond MU C8

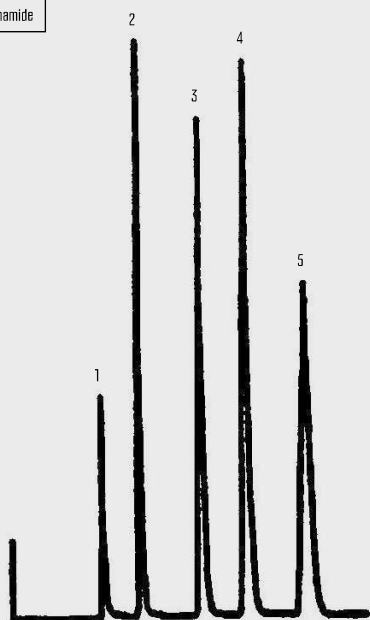
Vintage Bond MU C8 is a highly base-deactivated C8 phase, engineered through a multi-step process that begins with bonding C8 groups to ultra-high purity, synthetically produced spherical silica. This is followed by a proprietary multiple endcapping procedure, resulting in columns with exceptional inertness and minimized secondary interactions. As a C8 phase, it is less hydrophobic than C18, making it particularly suitable for separations that require reduced retention. This versatility allows Vintage Bond MU C8 to excel in the analysis of more hydrophobic compounds, both charged and neutral, such as lipids and steroids.

With its robust bonding chemistry and balanced selectivity, Vintage Bond MU C8 is an excellent choice for laboratories seeking a reliable, multi-use column for a wide variety of reversed-phase HPLC applications. Its performance is especially advantageous when method development demands flexibility for different compound classes, including pharmaceuticals, food additives, natural products, and environmental samples

HPLC analysis of a basic drug mixture using
Vintage Bond MU C8, 250 x 4.6 mm, 5 µm

Peak Identification
1. Unretained peak
2. Chlorpheniramine
3. Procainamide
4. Amiloride
5. N-acetylprocainamide

Mobile phase: 10% Acetonitrile
90% 50 mM KH₂PO₄
Flow rate: 1.0 mL/min
Detection: UV @ 254 nm



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond MU C8	50	2.1	3	112191-C8MU
Vintage Bond MU C8	50	2.1	5	112291-C8MU
Vintage Bond MU C8	50	4.6	3	115191-C8MU
Vintage Bond MU C8	100	2.1	3	122191-C8MU
Vintage Bond MU C8	100	2.1	5	122291-C8MU
Vintage Bond MU C8	100	4.6	3	125191-C8MU
Vintage Bond MU C8	100	4.6	5	125291-C8MU
Vintage Bond MU C8	125	4.6	5	105291-C8MU
Vintage Bond MU C8	150	2.1	3	132191-C8MU
Vintage Bond MU C8	150	2.1	5	132291-C8MU
Vintage Bond MU C8	150	3.0	3	133191-C8MU
Vintage Bond MU C8	150	4.0	5	134291-C8MU
Vintage Bond MU C8	150	4.6	10	135391-C8MU
Vintage Bond MU C8	150	4.6	3	135191-C8MU
Vintage Bond MU C8	150	4.6	5	135291-C8MU
Vintage Bond MU C8	250	3.0	5	183291-C8MU
Vintage Bond MU C8	250	4.0	10	154391-C8MU
Vintage Bond MU C8	250	4.0	5	154291-C8MU
Vintage Bond MU C8	250	4.6	5	155291-C8MU
Vintage Bond MU C8 Prep	250	10	5	157291-C8MU
Vintage Bond MU C8 Prep	250	20	5	158291-C8MU
Vintage Bond MU C8 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-C8MU
Vintage Bond MU C8 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-C8MU
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at LSales@VintageChrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

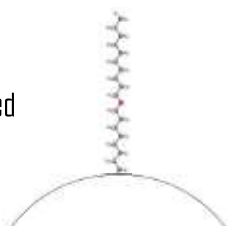
Vintage ARO

Vintage FSep

Equivalent

Vintage Bond Polar

Vintage Bond Polar is a high-density C18 phase specifically designed for the retention of polar analytes. Its advanced bonding chemistry ensures complete interaction with the hydrocarbon phase even in 100% aqueous mobile phases.



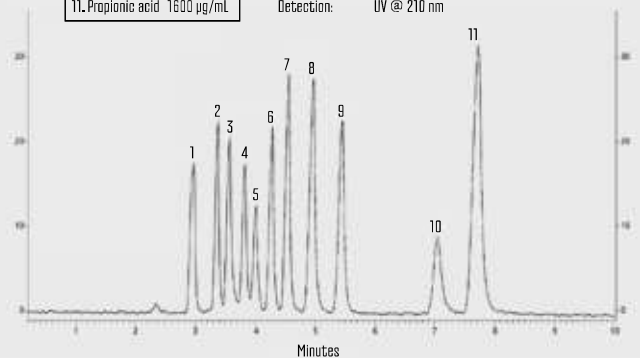
Under highly aqueous conditions, our proprietary bonding technology keeps the bonded chains fully extended in the mobile phase, preventing phase collapse. Vintage Bond Polar excels at retaining highly water-soluble compounds—including small organic acids, water-soluble vitamins, purines, pyrimidines, catecholamines, and other polar molecules—making it the ideal choice for challenging polar analyses.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Polar	50	2.1	1.8	512A91-VPO
Vintage Bond Polar	50	2.1	3	112191-VPO
Vintage Bond Polar	50	2.1	5	112291-VPO
Vintage Bond Polar	50	4.6	3	115191-VPO
Vintage Bond Polar	50	4.6	5	115291-VPO
Vintage Bond Polar	100	2.1	1.8	522A91-VPO
Vintage Bond Polar	100	2.1	3	122191-VPO
Vintage Bond Polar	100	2.1	5	122291-VPO
Vintage Bond Polar	100	3.0	1.8	523A91-VPO
Vintage Bond Polar	100	3.0	3	123191-VPO
Vintage Bond Polar	100	4.6	3	125191-VPO
Vintage Bond Polar	150	2.1	1.8	532A91-VPO
Vintage Bond Polar	150	2.1	3	132191-VPO
Vintage Bond Polar	150	2.1	5	132291-VPO
Vintage Bond Polar	150	3.0	3	133191-VPO
Vintage Bond Polar	150	4.6	3	135191-VPO
Vintage Bond Polar	150	4.6	5	135291-VPO
Vintage Bond Polar	200	4.6	3	145191-VPO
Vintage Bond Polar	250	2.1	5	152291-VPO
Vintage Bond Polar	250	4.0	5	154291-VPO
Vintage Bond Polar	250	4.6	10	155391-VPO
Vintage Bond Polar	250	4.6	3	155191-VPO
Vintage Bond Polar	250	4.6	5	155291-VPO
Vintage Bond Polar	300	3.9	10	16e391-VPO
Vintage Bond Polar	300	4.0	5	164291-VPO
Vintage Bond Polar Prep	250	10	5	157291-VPO
Vintage Bond Polar Prep	250	20	10	158391-VPO
Vintage Bond Polar Prep	250	20	5	158291-VPO
Vintage Bond Polar Prep	250	30	5	15N291-VPO
Vintage Bond Polar Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-VPO
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler	-	-	-	

HPLC analysis of low molecular weight polar organic acids using Vintage Bond Polar, 250 x 4.6 mm, 5 µm.

Peak Identification	
1. Glucuronic acid	500 µg/mL
2. Tartaric acid	167 µg/mL
3. Formic acid	333 µg/mL
4. Malic acid	250 µg/mL
5. Shikimic acid	6.7 µg/mL
6. Lactic acid	666 µg/mL
7. Acetic acid	656 µg/mL
8. Citric Acid	420 µg/mL
9. Succinic acid	833 µg/mL
10. Fumaric acid	3 µg/mL
11. Propionic acid	1600 µg/mL

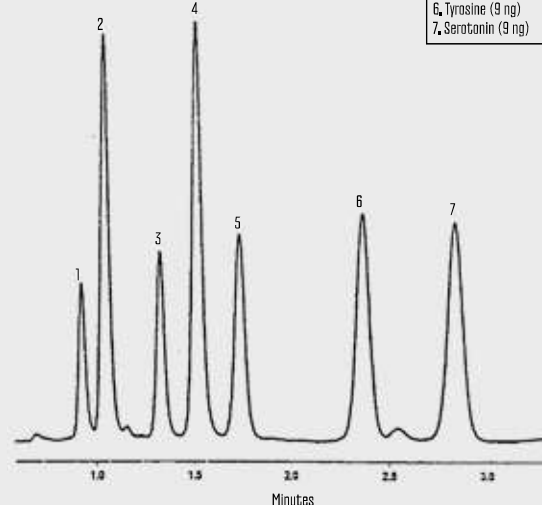
Mobile phase: 50 mM H3PO4
Flow rate: 1.0 mL/min
Injection vol: 5 µL
Detection: UV @ 210 nm



HPLC analysis of catecholamines and related compounds using Vintage Bond Polar, 100 x 4.6 mm, 3 µm.

Mobile phase: 93% 50 mM phosphoric acid / 7% methanol
Flow rate: 1.3 mL/min
Injection vol: 5 µL
Detection: UV @ 225 nm

Peak Identification	
1. Norepinephrine	(8 ng)
2. Epinephrine	(20ng)
3. 3-Hydroxylamine	(8 ng)
4. Metanephrine	(19 ng)
5. L-DOPA	(9 ng)
6. Tyrosine	(9 ng)
7. Serotonin	(9 ng)



Other column dimensions and guard cartridges are available. Please enquire for more details at LSales@VintageChrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

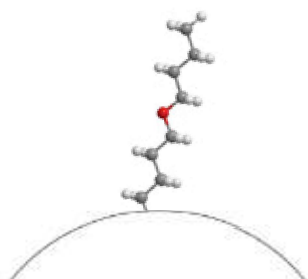
Equivalent

Vintage Bond Aqua

Vintage Bond Aqua is engineered for the most challenging separations involving polar compounds, analytes requiring highly aqueous mobile phases, or compounds that are typically difficult to retain. This phase is fully stable and reliable, even with 100% aqueous eluents, completely resistant to phase collapse under any mobile phase condition. The unique design incorporates an ether linkage near the silica surface, allowing water to penetrate and hydrate the stationary phase, which ensures both high aqueous stability and maximum hydrophobic interaction.

Vintage Bond Aqua enables rapid re-equilibration with gradients from 0–100% aqueous, supporting fast throughput and high laboratory productivity. Its chemistry eliminates the need for ion-pairing reagents when analyzing highly polar compounds, simplifying method development and reducing potential sources of variability. The unique single-step bonding process produces a phase that can reliably separate polar analytes using 100% aqueous eluents, offering a robust and straightforward solution for laboratories focused on polar organic acids, water-soluble vitamins, and other hydrophilic compounds.

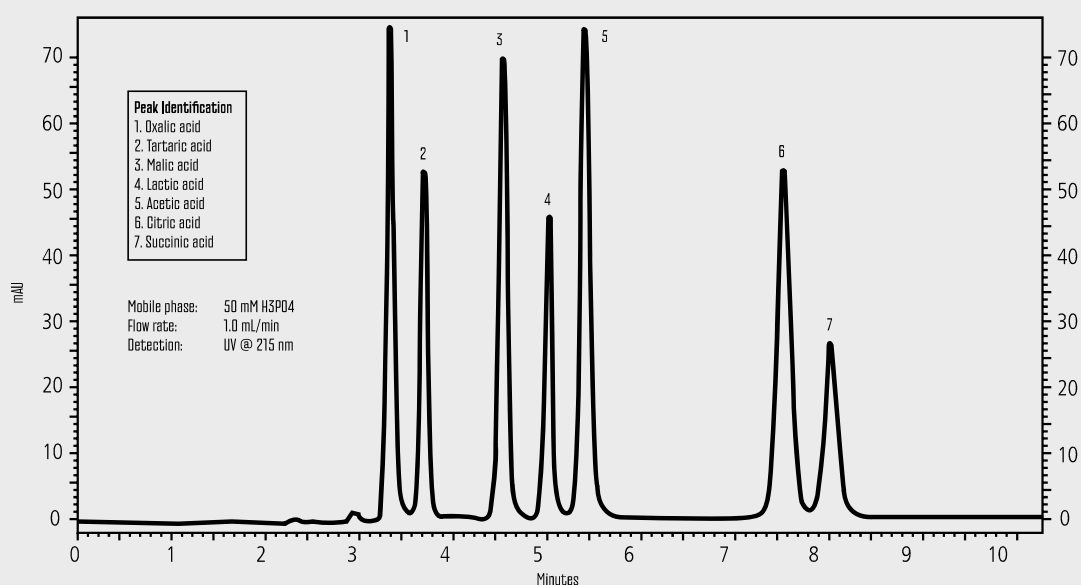
One of our most popular products, Vintage Bond Aqua is trusted by chromatographers for its unmatched combination of stability, selectivity, and ease of use in highly aqueous reversed-phase HPLC applications.



Features and Benefits

- Rapid re-equilibration with gradients (0–100%) for fast throughput
- No ion-pairing reagents required for highly polar compounds, simplifying methods
- Patented single step bonding approach results in a phase which is totally resistant to phase collapse and can separate polar compounds with 100% aqueous eluents

HPLC analysis of organic acids using Vintage Bond Aqua, 250 mm x 4.6 mm, 5 μ m.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

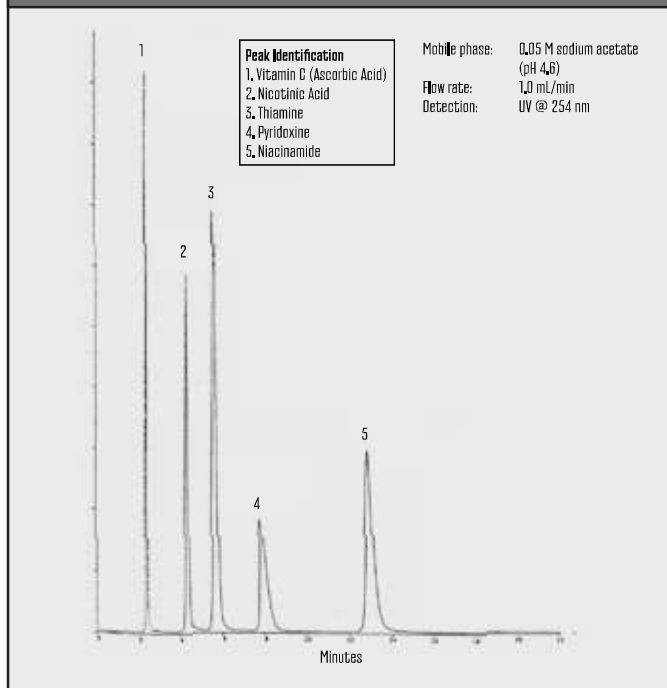
Equivalent

Vintage Bond Aqua

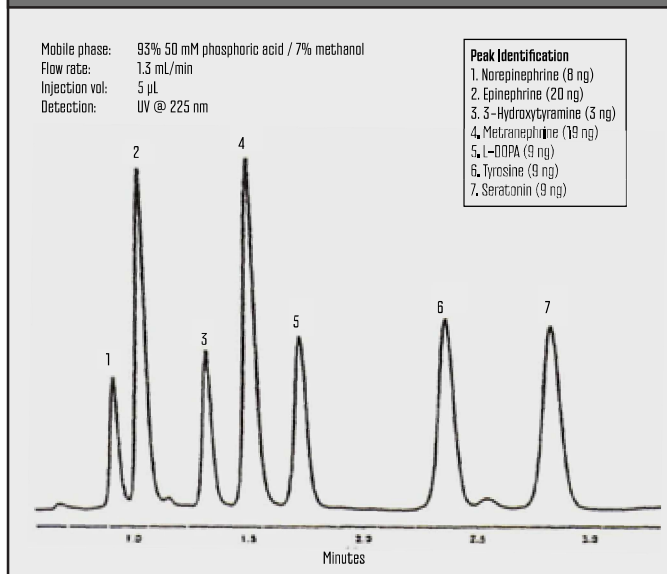
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Aqua	50	2.1	3	112121-AQ
Vintage Bond Aqua	50	2.1	5	112221-AQ
Vintage Bond Aqua	50	4.6	3	115121-AQ
Vintage Bond Aqua	100	4.6	3	125121-AQ
Vintage Bond Aqua	100	4.6	5	125221-AQ
Vintage Bond Aqua	150	2.1	3	132121-AQ
Vintage Bond Aqua	150	2.1	5	132221-AQ
Vintage Bond Aqua	150	3.9	5	13e221-AQ
Vintage Bond Aqua	150	4.0	3	134121-AQ
Vintage Bond Aqua	150	4.0	5	134221-AQ
Vintage Bond Aqua	150	4.6	3	135121-AQ
Vintage Bond Aqua	150	4.6	5	135221-AQ
Vintage Bond Aqua	250	4.0	5	154221-AQ
Vintage Bond Aqua	250	4.6	3	155121-AQ
Vintage Bond Aqua	250	4.6	5	155221-AQ
Vintage Bond Aqua Prep	50	10	5	117221-AQ
Vintage Bond Aqua Prep	250	10	5	157291-AQ
Vintage Bond Aqua Prep	250	20	5	158221-AQ
Vintage Bond Aqua Prep	250	20	5	158221-AQ
Vintage Bond Aqua Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-AQ
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

HPLC analysis of water soluble vitamins using Vintage Bond Aqua, 150 mm x 4.6 mm, 5 µm.



HPLC analysis of catecholamines and related compounds using Vintage Bond Aqua, 100 mm x 4.6 mm, 3 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

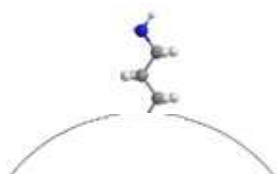
Vintage FSep

Equivalent

Vintage Bond Amine HD

Vintage Bond Amine HD is a high-density polymeric amino phase bonded to silica, engineered for versatile chromatographic applications.

Ideal for HILIC separations, weak acids, and sugars, this phase leverages advanced bonding technology to deliver outstanding performance and durability. The superior characteristics of Vintage Bond Amine HD stem from its high bonding density, ensuring reliable results and extended column lifetimes for demanding analytical workflows.



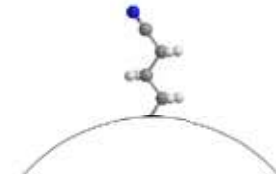
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Amine HD	50	2.1	1.8	512A91-A/HD
Vintage Bond Amine HD	100	2.1	1.8	522A91-A/HD
Vintage Bond Amine HD	100	4.6	5	125291-A/HD
Vintage Bond Amine HD	150	2.1	1.8	532A91-A/HD
Vintage Bond Amine HD	150	4.6	5	135291-A/HD
Vintage Bond Amine HD	250	4.0	5	154291-A/HD
Vintage Bond Amine HD	250	4.6	5	155291-A/HD
Vintage Bond Amine HD	300	3.9	10	16e391-A/HD
Vintage Bond Amine HD	300	4.6	5	165291-A/HD
Vintage Bond Amine HD Prep	100	20	5	128291-A/HD
Vintage Bond Amine HD Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-A/HD
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

Vintage Bond Cyano

Vintage Bond Cyano is a less hydrophobic phase compared to traditional C8 and C18 alkyl phases, offering excellent stability and consistent lot-to-lot reproducibility.

The cyano functional group enhances dipole interactions, providing alternative selectivity for challenging separations. Suitable for both reversed-phase (especially higher molecular weight compounds) and normal-phase applications, Vintage Bond Cyano is a versatile choice for chromatographers seeking reliable performance and unique selectivity.



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Cyano	50	2.1	1.8	512A91-CN
Vintage Bond Cyano	50	4.6	5	115291-CN
Vintage Bond Cyano	100	2.1	1.8	522A91-CN
Vintage Bond Cyano	250	4.6	5	155291-CN
Vintage Bond Cyano Prep	250	10	5	157291-CN
Vintage Bond Cyano Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CN
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond MU Cyano

Vintage Bond MU Cyano is a highly base-deactivated cyano phase produced through a multi-step process, beginning with the bonding of cyano groups to ultra-high purity, synthetically produced spherical silica. This is followed by a proprietary multiple endcapping procedure, resulting in columns with exceptional inertness and minimized secondary interactions. The MU Cyano phase is less hydrophobic than traditional alkyl phases such as C8 and C18, offering increased dipole interactions for alternative selectivity. This makes it particularly suitable for both reversed-phase (especially for higher molecular weight compounds) and normal-phase applications. The endcapped design of Vintage Bond MU Cyano provides a selectivity profile distinct from non-endcapped cyano (Vintage Bond Cyano) columns, delivering excellent stability, reproducibility, and versatility for challenging separations involving polar pharmaceuticals and aromatic natural products.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond MU Cyano	50	2.1	3	112191-CNMMU
Vintage Bond MU Cyano	50	2.1	5	112291-CNMMU
Vintage Bond MU Cyano	50	4.6	3	115191-CNMMU
Vintage Bond MU Cyano	100	2.1	3	122191-CNMMU
Vintage Bond MU Cyano	100	2.1	5	122291-CNMMU
Vintage Bond MU Cyano	100	4.6	3	125191-CNMMU
Vintage Bond MU Cyano	100	4.6	5	125291-CNMMU
Vintage Bond MU Cyano	150	2.1	3	132191-CNMMU
Vintage Bond MU Cyano	150	2.1	5	132291-CNMMU
Vintage Bond MU Cyano	150	4.6	3	135191-CNMMU
Vintage Bond MU Cyano	150	4.6	5	135291-CNMMU
Vintage Bond MU Cyano	250	4.6	5	155291-CNMMU
Vintage Bond MU Cyano	300	4.0	5	164291-CNMMU
Vintage Bond MU Cyano	300	4.6	5	165291-CNMMU
Vintage Bond MU Cyano Prep	150	50	5	13F291-CNMMU
Vintage Bond MU Cyano Prep	250	10	5	157291-CNMMU
Vintage Bond MU Cyano Prep	250	20	5	158291-CNMMU
Vintage Bond MU Cyano Prep	250	30	5	15N291-CNMMU
Vintage Bond MU Cyano Prep	50	20	5	118291-CNMMU
Vintage Bond MU Cyano Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CNMMU
Vintage Bond MU Cyano Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CNMMU
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: LSales@VintageChrom.com

Vintage Bond Amino Cyano

Vintage Bond Amino/Cyano columns are based on aminopropyl and cyanopropyl bonding, providing versatile selectivity for the separation of polar compounds. This phase can be used in both reversed-phase and normal-phase chromatography, making it suitable for a variety of analytical challenges. Vintage Bond Amino/Cyano is particularly effective for determining nitrogen-containing compounds in crude oil using normal phase methods, and its dual functionality offers chromatographers a flexible solution for polar analyte separations across diverse sample type.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Amino Cyano	50	2.1	3	112111-A/CN
Vintage Bond Amino Cyano	50	4.6	10	115311-A/CN
Vintage Bond Amino Cyano	50	2.1	5	112211-A/CN
Vintage Bond Amino Cyano	100	2.1	3	122111-A/CN
Vintage Bond Amino Cyano	100	2.1	5	122211-A/CN
Vintage Bond Amino Cyano	100	4.6	3	125111-A/CN
Vintage Bond Amino Cyano	100	4.6	5	125211-A/CN
Vintage Bond Amino Cyano	150	2.1	3	132111-A/CN
Vintage Bond Amino Cyano	150	2.1	5	132211-A/CN
Vintage Bond Amino Cyano	150	4.6	3	135111-A/CN
Vintage Bond Amino Cyano	150	4.6	5	135211-A/CN
Vintage Bond Amino Cyano	250	2.1	5	152211-A/CN
Vintage Bond Amino Cyano	250	4.6	5	155211-A/CN
Vintage Bond Amino Cyano	250	4.6	10	155311-A/CN
Vintage Bond Amino Cyano Prep	250	10	5	157211-A/CN
Vintage Bond Amino Cyano Prep	250	20	5	158211-A/CN
Vintage Bond Amino Cyano Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-A/CN
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: LSales@VintageChrom.com

Vintage Bond

Vintage Bio

Vintage SEC

Vintage SFC

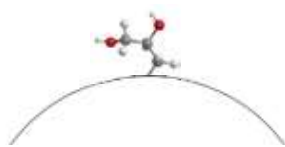
Vintage ARO

Vintage FSep

Equivalent

Vintage Bond Diol

Vintage Bond Diol is designed for both reversed phase and normal phase chromatography. Less polar than bare silica and highly water-wettable, Vintage Bond Diol often delivers superior peak shapes compared to unbonded silica columns. Developed specifically for high-performance chromatography, these columns combine precise particle size control with proprietary high-density bonding technology to ensure exceptional results in either reversed phase or normal phase applications.



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Diol	50	3.0	3	113191-D
Vintage Bond Diol	50	4.6	3	115191-D
Vintage Bond Diol	150	3.0	3	133191-D
Vintage Bond Diol	150	4.6	5	135291-D
Vintage Bond Diol	250	2.1	5	152291-D
Vintage Bond Diol	250	4.6	5	155291-D
Vintage Bond Diol Prep	150	20	5	138291-D
Vintage Bond Diol Prep	150	30	5	13N291-D
Vintage Bond Diol Prep	250	10	5	157291-D
Vintage Bond Diol Prep	250	20	5	158291-D
Vintage Bond Diol Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-D
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: UCSales@VintageChrom.com

Vintage Bond Silica

Vintage Bond Silica serves as the foundation for the entire Vintage Bond product range.



Manufactured from high-purity, metal-free synthetic silica with a 120 Å pore size, this phase is specifically designed for normal phase chromatography applications. Vintage Bond Silica is the only column in the Vintage Bond line dedicated to normal phase separations. For preparative chromatography, Vintage Bond Silica Prep columns are highly effective, as normal phase organic solvents are more easily removed than those used in reversed phase methods, streamlining purification and recovery processes.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Silica	50	2.1	3	112191-SI
Vintage Bond Silica	50	3.0	3	113191-SI
Vintage Bond Silica	50	4.6	5	115291-SI
Vintage Bond Silica	100	4.6	3	125191-SI
Vintage Bond Silica	150	2.1	3	132191-SI
Vintage Bond Silica	150	4.6	5	135291-SI
Vintage Bond Silica	250	4.6	3	155191-SI
Vintage Bond Silica	250	4.6	5	155291-SI
Vintage Bond Silica Prep	50	50	5	11F291-SI
Vintage Bond Silica Prep	250	10	5	157291-SI
Vintage Bond Silica Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SI
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: UCSales@VintageChrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond HILIC Silica

Vintage Bond HILIC Silica is manufactured from ultrapure silica, precisely sized to deliver high-efficiency columns for hydrophilic interaction liquid chromatography (HILIC). Each batch is pretreated to ensure a uniform distribution of silanol sites, which is essential for reproducible and reliable HILIC separations. Vintage Bond HILIC Silica is particularly effective for the separation of polar bases, which can interact with silanol groups via ion exchange, enabling strong retention of these highly polar compounds.

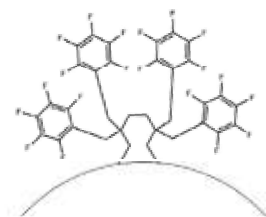


Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond HILIC Silica	100	3.0	3	123191-HILSIL
Vintage Bond HILIC Silica	100	3.0	5	123291-HILSIL
Vintage Bond HILIC Silica	100	4.6	3	125191-HILSIL
Vintage Bond HILIC Silica	150	3.0	1.8	533A91-HILSIL
Vintage Bond HILIC Silica	150	3.0	3	133191-HILSIL
Vintage Bond HILIC Silica	150	3.0	5	133291-HILSIL
Vintage Bond HILIC Silica	150	4.6	3	135191-HILSIL
Vintage Bond HILIC Silica	150	4.6	5	135291-HILSIL
Vintage Bond HILIC Silica	250	4.6	5	155291-HILSIL
Vintage Bond HILIC Silica Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-HILSIL
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LSales@VintageChrom.com

Vintage Bond HILIC Fluoro

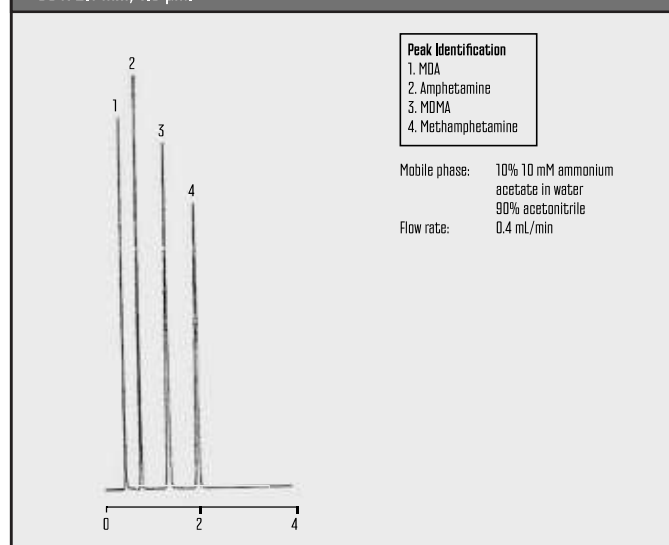
Vintage Bond HILIC Fluoro is engineered for the effective retention and separation of both polar and non-polar compounds that are challenging to resolve on conventional reversed phase columns. This phase features a fluorinated stationary phase bonded to high-purity silica, delivering excellent retention and peak shape for polar halogenated compounds, polar amines, and polar aromatic analytes. Specifically designed for HILIC chromatography, Vintage Bond HILIC Fluoro achieves high-performance separations, provides robust and reproducible methods, and ensures extended column lifetimes—making it an ideal choice for demanding analytical applications involving difficult-to-separate polar and halogenated compounds.



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond HILIC Fluoro	50	2.1	1.8	512A91-HILFL
Vintage Bond HILIC Fluoro	50	2.1	3	112191-HILFL
Vintage Bond HILIC Fluoro	100	2.1	1.8	522A91-HILFL
Vintage Bond HILIC Fluoro	100	4.6	5	125291-HILFL
Vintage Bond HILIC Fluoro	150	2.1	3	132191-HILFL
Vintage Bond HILIC Fluoro Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-HILFL
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LSales@VintageChrom.com

HPLC analysis of amphetamines using Vintage Bond HILIC Fluoro, 50 x 2.1 mm, 1.8 µm.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

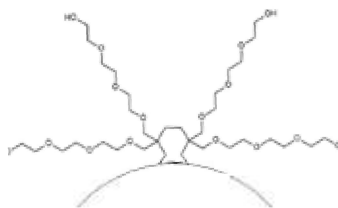
Vintage ARO

Vintage FSep

Equivalent

Vintage Bond HILIC PolyH

Vintage Bond HILIC PolyH is a next-generation stationary phase engineered for hydrophilic interaction liquid chromatography (HILIC). Composed of a



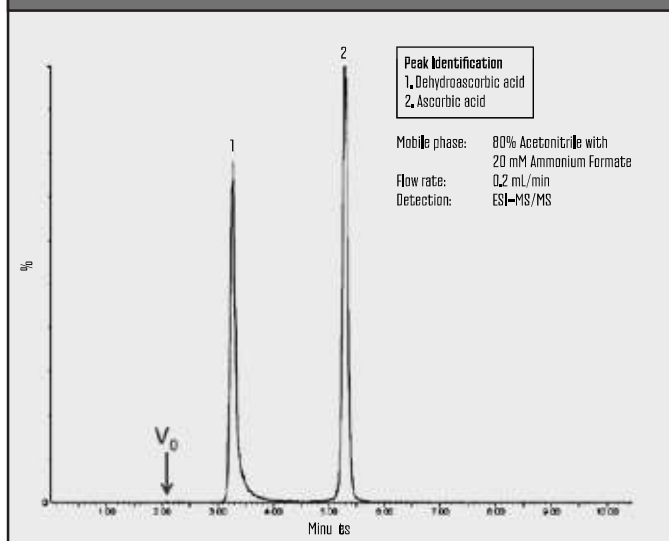
polyhydroxylated polymer coated and covalently bound to high-purity silica, this phase optimizes performance under HILIC conditions. The advanced polymer coating delivers hydroxyl group density significantly exceeding conventional hydroxyl or diol phases, enabling enhanced retention and resolution for highly polar analytes.

Vintage Bond HILIC PolyH excels in separating challenging polar compounds, such as dehydroascorbic acid (DHAA) and ascorbic acid (AA), which are critical for studying vitamin C transport in biological systems. DHAA, the oxidized form of AA, is notoriously difficult to resolve due to its polarity, but this phase achieves baseline separation—a key advantage for researchers analyzing redox dynamics in physiological fluids.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond HILIC PolyH	100	2.1	1.8	522A91-HILPOH
Vintage Bond HILIC PolyH	100	3.0	3	123191-HILPOH
Vintage Bond HILIC PolyH	100	3.0	5	123291-HILPOH
Vintage Bond HILIC PolyH	100	4.6	3	125191-HILPOH
Vintage Bond HILIC PolyH	150	2.1	1.8	532A91-HILPOH
Vintage Bond HILIC PolyH	150	2.1	3	132191-HILPOH
Vintage Bond HILIC PolyH	150	3.0	3	133191-HILPOH
Vintage Bond HILIC PolyH	150	3.0	5	133291-HILPOH
Vintage Bond HILIC PolyH	150	4.6	3	135191-HILPOH
Vintage Bond HILIC PolyH	150	4.6	5	135291-HILPOH
Vintage Bond HILIC PolyH	250	4.6	5	155291-HILPOH
Vintage Bond HILIC PolyH Prep	250	10	5	157291-HILPOH
Vintage Bond HILIC PolyH Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-HILPOH
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: USSales@VintageChrom.com

HPLC analysis of highly polar compounds – dehydroascorbic acid (DHAA) and ascorbic acid (AA) using Vintage Bond HILIC PolyH, 150 x 2.1 mm, 3µm.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond HILIC Reverse

Vintage Bond HILIC Reverse is an innovative stationary phase designed to seamlessly combine the benefits of HILIC and reversed-phase chromatography. This column is an excellent choice for complex samples containing both polar and hydrophobic analytes.

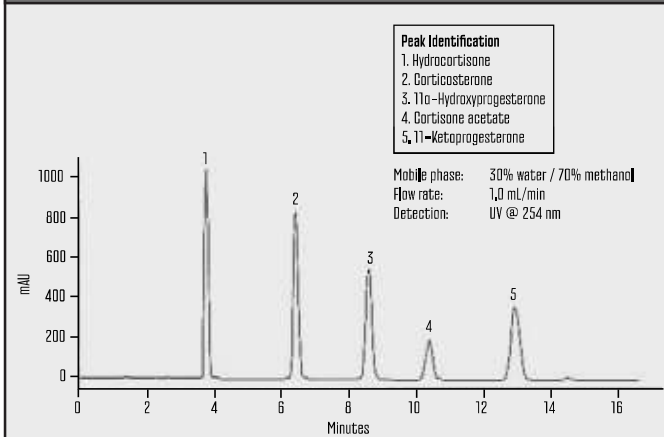
The phase is engineered with a unique combination: a polyhydroxylated polymer is coated and bonded to silica, while C18 groups are also bound to the silica surface. This advanced composition results in hydroxyl group levels far exceeding those of conventional hydroxyl and diol phases, delivering enhanced retention and selectivity for a wider range of compounds.

Unlike many commercial HILIC stationary phases—which are often converted normal phase columns and can suffer from poor separation, limited durability, and inconsistent results—Vintage Bond HILIC Reverse is purpose-built for HILIC applications. It provides high-performance separations, robust and reproducible methods, and extended column lifetimes, making it ideal for laboratories seeking reliable results with demanding sample matrices.

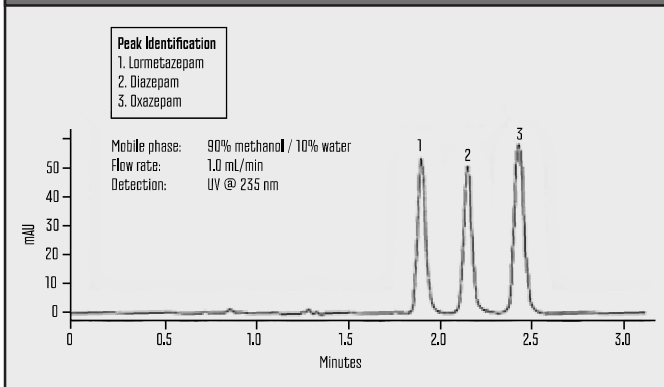
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond HILIC Reverse	50	2.1	3	112191-HILRP
Vintage Bond HILIC Reverse	100	2.1	3	122191-HILRP
Vintage Bond HILIC Reverse	100	3.0	3	123191-HILRP
Vintage Bond HILIC Reverse	100	3.0	5	123291-HILRP
Vintage Bond HILIC Reverse	100	4.6	3	125191-HILRP
Vintage Bond HILIC Reverse	150	2.1	3	132191-HILRP
Vintage Bond HILIC Reverse	150	3.0	3	133191-HILRP
Vintage Bond HILIC Reverse	150	3.0	5	133291-HILRP
Vintage Bond HILIC Reverse	150	4.6	3	135191-HILRP
Vintage Bond HILIC Reverse	150	4.6	5	135291-HILRP
Vintage Bond HILIC Reverse	200	4.6	3	145191-HILRP
Vintage Bond HILIC Reverse	250	4.6	5	155291-HILRP
Vintage Bond HILIC Reverse Prep	250	20	5	158291-HILRP
Vintage Bond HILIC Reverse Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-HILRP
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler				

Other column dimensions and guard cartridges are available.
Please enquire for more details at USSales@VintageChrom.com

HPLC analysis of steroids using Vintage Bond HILIC Reverse, 250 x 4.6 mm, 5 µm.



HPLC analysis of benzodiazepines using Vintage Bond HILIC Reverse, 250 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

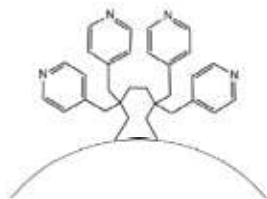
Vintage FSep

Equivalent

Vintage Bond HILIC PolarA

Vintage Bond HILIC PolarA is a new stationary phase specifically developed for HILIC chromatography. Featuring an aromatic amine-based bonded phase on high-purity silica, this column delivers excellent

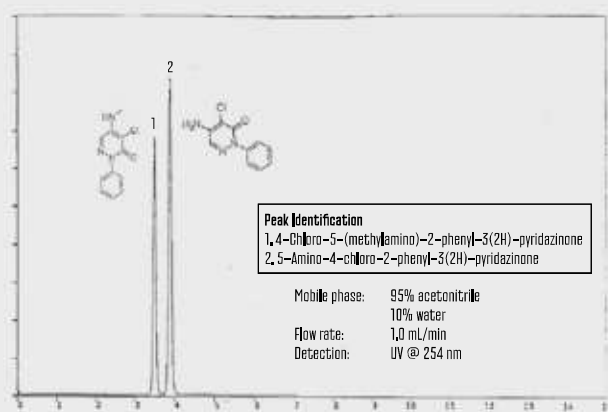
retention and peak shape for polar amine compounds, along with superior retention for acidic analytes. Unlike many commercially available HILIC phases—which are often converted normal phase columns and can suffer from poor separation, lack of durability, and inconsistent results—Vintage Bond HILIC PolarA is purpose-built for HILIC applications. It consistently achieves high-performance separations, robust and reproducible methods, and extended column lifetimes, making it an ideal choice for laboratories analyzing challenging polar compounds.



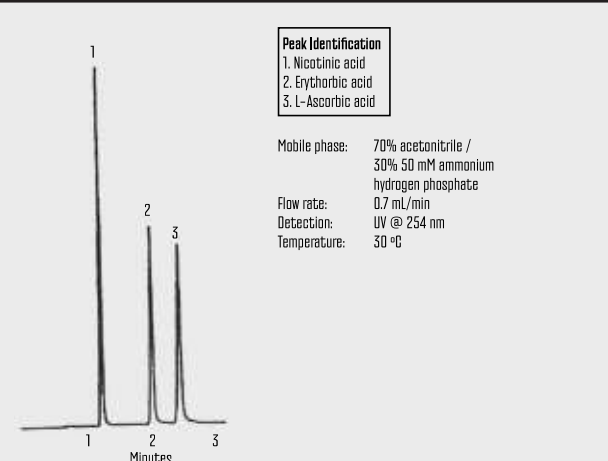
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond HILIC PolarA	50	2.1	1.8	512A91-HILPI
Vintage Bond HILIC PolarA	50	2.1	3	112191-HILPI
Vintage Bond HILIC PolarA	75	3.0	3	19d191-HILPI
Vintage Bond HILIC PolarA	100	2.1	1.8	522A91-HILPI
Vintage Bond HILIC PolarA	100	2.1	3	122191-HILPI
Vintage Bond HILIC PolarA	100	4.6	5	125291-HILPI
Vintage Bond HILIC PolarA	150	4.6	3	135191-HILPI
Vintage Bond HILIC PolarA	250	4.6	5	155291-HILPI
Vintage Bond HILIC PolarA Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-HILPI
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at USSales@VintageChrom.com

HPLC analysis of amine containing heterocycles using Vintage Bond HILIC PolarA, 150 x 4.6 mm, 5 µm.



HPLC analysis of nicotinic acid, erythorbic acid and L-ascorbic acid using Vintage Bond HILIC PolarA, 50 x 2.1 mm, 1.8 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

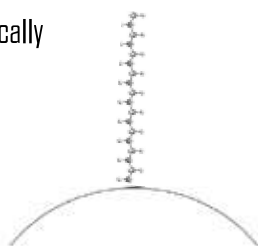
Vintage ARO

Vintage FSep

Equivalent

Vintage Bond Cannabinoid

Vintage Bond Cannabinoid is specifically validated for cannabinoid analysis, offering robust performance through high-density bonding—an essential factor in creating a durable stationary phase and reliable HPLC column. This phase delivers complete resolution of 11 major and commonly observed minor cannabinoids using a fast, 9-minute LC-UV method, making it ideal for high-throughput cannabis testing laboratories. The analysis employs a straightforward isocratic mobile phase, ensuring easy method transferability between instruments and labs, unlike more complex gradient-based approaches or those requiring uncommon additives.

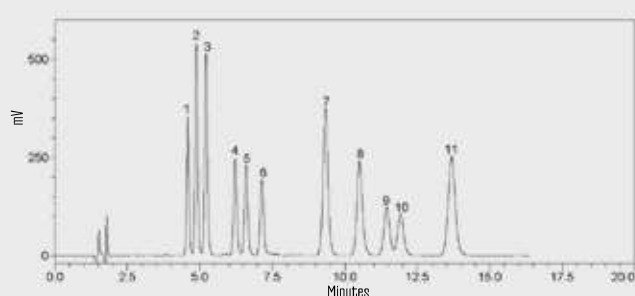


- Rapid determination of Δ^9 -THC, Δ^8 -THC, and THCA
- Robust column technology
- Separation is performed using isocratic mobile phase conditions which is easily transferable between instruments and labs.

Preparative scale up phases available. Please contact LCsales@vintagechrom.com for more information

Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Part No.
Vintage Bond Cannabinoid	150	4.6	3	1351X1-CANN

HPLC analysis of 11 major and most frequently observed cannabinoids using Vintage Bond Cannabinoid, 150 x 4.6 mm, 3 μ m.



Mobile phase: 80% Acetonitrile / 20% Water
0.1% Formic acid
10 mM Ammonium formate

Flow rate: 1.0 mL/min
Detection: UV @ 230 nm
Oven temp: 35 °C

Peak Identification

1. Cannabivarin (CBOV)
2. Cannabidiolic acid (CBDA)
3. Cannabigerolic acid (CBGA)
4. Cannabigerol (CBG)
5. Cannabidiol (CBD)
6. Tetrahydrocannabivarin (THCV)
7. Cannabinol (CBN)
8. Tetrahydrocannabinolic acid (THCA)
9. Δ^9 -Tetrahydrocannabinol (Δ^9 -THC)
10. Δ^8 -Tetrahydrocannabinol (Δ^8 -THC)
11. Cannabichromene (CBC)



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond Petro DNAP

(also available DNAP-II)

Vintage Bond Petro DNAP columns are specifically engineered for the analysis of complex petroleum samples, utilizing a dinitroanilino propyl phase. The electron-deficient aromatic ring structure of this phase creates a strong affinity for aromatic solutes, enabling effective separation based on aromatic ring class—even for alkyl-substituted aromatics that are typically challenging to resolve. This unique selectivity makes Vintage Bond Petro DNAP an ideal choice for laboratories needing to distinguish between different aromatic components in petroleum products, offering reliable performance for both routine and advanced petroleum analyses. Also try our Vintage Bond Petro DNAP-II for similar separation capability.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Petro DNAP	100	4.6	5	125221-DNAP
Vintage Bond Petro DNAP	150	4.6	5	135221-DNAP
Vintage Bond Petro DNAP	250	4.6	5	155221-DNAP
Vintage Bond Petro DNAP Prep	250	10	5	157221-DNAP
Vintage Bond Petro DNAP Prep	250	20	5	158221-DNAP
Vintage Bond Petro DNAP Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-DNAP
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Petro DNAP-II	100	4.6	5	125221-DNAP-II
Vintage Bond Petro DNAP-II	150	4.6	5	135221-DNAP-II
Vintage Bond Petro DNAP-II	250	4.6	5	155221-DNAP-II
Vintage Bond Petro DNAP-II Prep	250	10	5	157221-DNAP-II
Vintage Bond Petro DNAP-II Prep	250	20	5	158221-DNAP-II
Vintage Bond Petro DNAP-II Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-DNAP-II
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: USSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond Petro RSep

Vintage Bond Petro RSep represents a significant advancement in HPLC column technology for petroleum analysis. Specifically developed to separate aromatic compounds by ring number, this column is meticulously optimized to ensure accurate analysis of aromatic ring distribution in complex petroleum samples. Its unique selectivity makes it particularly valuable for applications in petroleum refining and petrochemical production, where understanding the distribution of aromatic ring classes is critical for product characterization and quality control.

With its dedicated design for petroleum product applications, Vintage Bond Petro RSep enables precise and reproducible separation of aromatic compounds, including those with varying numbers of fused rings. This ensures laboratories can confidently analyze and monitor aromatic content, improving both process efficiency and compliance with industry standards.

Features and Benefits

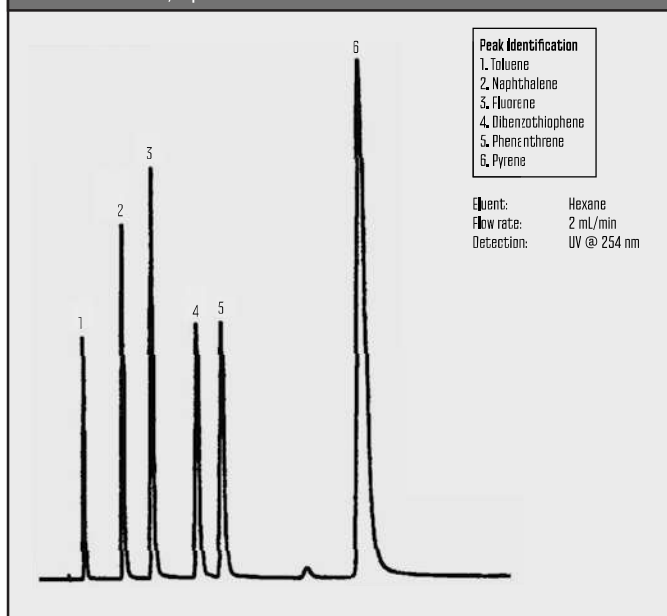
- Specifically developed for petroleum product applications
- Ensure accurate analysis of aromatic ring distribution

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond Petro RSep	50	4.6	5	115211-RSP
Vintage Bond Petro RSep	100	4.6	5	125211-RSP
Vintage Bond Petro RSep	150	2.1	5	132211-RSP
Vintage Bond Petro RSep	150	4.6	5	135211-RSP
Vintage Bond Petro RSep	250	2.1	5	152211-RSP
Vintage Bond Petro RSep	250	4.6	5	155211-RSP
Vintage Bond Petro RSep	250	9.6	5	157211-RSP
Vintage Bond Petro RSep Prep	250	20	5	158211-RSP
Vintage Bond Petro RSep Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-RSP
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at LSales@VintageChrom.com



HPLC analysis of petroleum compounds using Vintage Bond Petro RSep, 150 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage Bond SCX

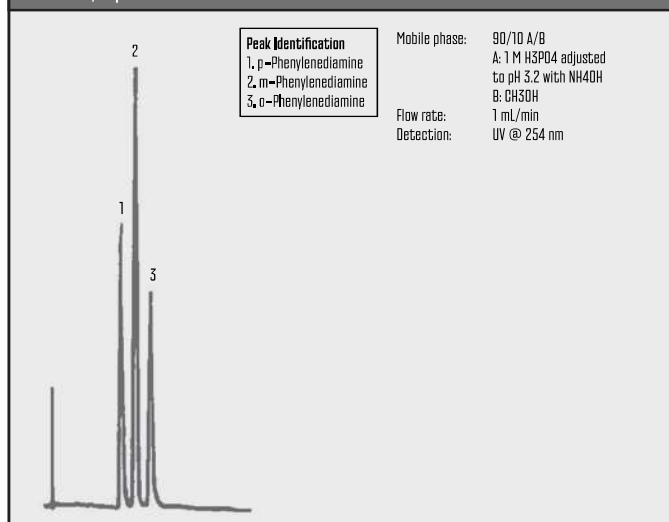
Vintage Bond SCX is a robust strong cation exchange phase designed for challenging separations of ionic compounds. Unlike typical SCX phases, it features an aromatic-based stationary phase with a C8 alkyl chain, produced through advanced bonding chemistry that ensures highly reproducible performance. This unique combination provides dual functionality, offering both cation exchange and hydrophobic interactions, which is especially valuable for resolving complex mixtures containing ionic and hydrophobic analytes.

Vintage Bond SCX is particularly well-suited for pharmaceutical applications, such as the analysis of isonicotinic acid, pyrazinamide, and isoniazid in tablet formulations. Its versatility also extends to lipid analysis, as chromatographers have successfully adapted this column for silver ion-exchange separations of triglycerides. The column's proprietary bonding process delivers consistent results and method reliability, making it a preferred choice for laboratories requiring enhanced selectivity and reproducibility in both routine and specialized workflows.

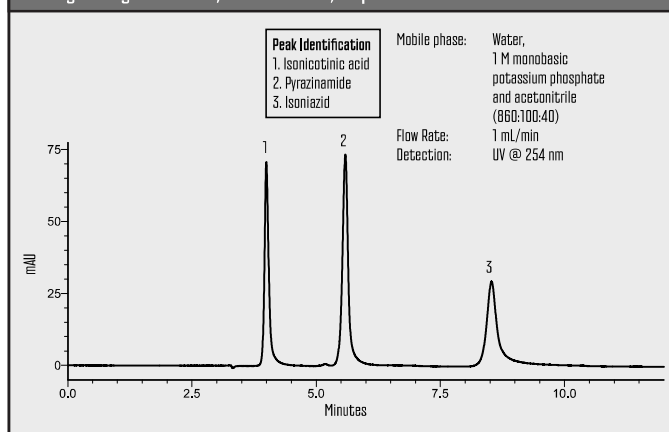
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond SCX	250	4.6	5	125221-EXSC
Vintage Bond SCX	250	4.6	10	135221-EXSC
Vintage Bond SCX	300	4.6	5	165211-EXSC
Vintage Bond SCX	300	4.6	10	165311-EXSC

Please enquire for more details at LCSales@VintageChrom.com

HPLC analysis of a phenylenediamine isomers using Vintage Bond SCX 150 x 4.6 mm, 5 µm



HPLC analysis of anti-tuberculosis drugs isoniazid and pyrazinamide using Vintage Bond SCX, 300 x 4.6 mm, 10 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage BIO



Vintage BIO

Vintage BIO columns are engineered to meet the rigorous demands of bioanalytical chromatography, providing highly efficient, state-of-the-art wide pore HPLC columns for the analysis of proteins, peptides, and other high molecular weight biomolecules. Manufactured from ultra-high purity, metal-free silica with precisely controlled pore sizes of 400 Å, 700 Å, or 1200 Å, Vintage BIO columns deliver outstanding peak shape, efficiency, and reproducibility across a broad range of bioseparation applications. The advanced bonding technology ensures superior base deactivation, resulting in excellent recoveries and minimal adsorption—especially critical for sensitive or basic biomolecules.

These columns feature high-density bonding and full endcapping, offering exceptional resistance to both acidic and alkaline conditions. Tight process control during silica preparation, bonding, and column packing guarantees consistent column performance, high symmetry, and reproducibility from batch to batch. Vintage BIO columns are available in multiple particle sizes to support both analytical and preparative workflows, making them a versatile and reliable solution for the separation and purification of proteins, peptides, and other biological compounds. With their wide pore surface, ultra-high purity silica, and robust chemical stability, Vintage BIO columns set a new standard for performance and reliability in biomolecule chromatography.

Features and Benefits

- Wide pore surface for the analysis of proteins and peptides
- Ultra-high purity metal free silica for improved peak shape, especially for basic compounds
- State-of-the-art base deactivation to ensure superior recoveries of proteins and peptides



Brand	Phase	Particle Size (µm)	Pore Size (Å)	End Cap	pH Range	USP Code
Vintage BIO	Aqua	3, 5, 10	400, 700, 1200	No	2–8	L7
Vintage BIO	Biphenyl	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	L11
Vintage BIO	C18	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	L1
Vintage BIO	C4	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	L26
Vintage BIO	C8	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	L7
Vintage BIO	Diphenyl	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	L11
Vintage BIO	HPR	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	–
Vintage BIO	Naphthyl	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	–
Vintage BIO	PFP	1.9, 3, 5, 10	400, 700, 1200	Yes	2–9	L43

Preparative columns of these phases are also available. Please enquire for more details at LCSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

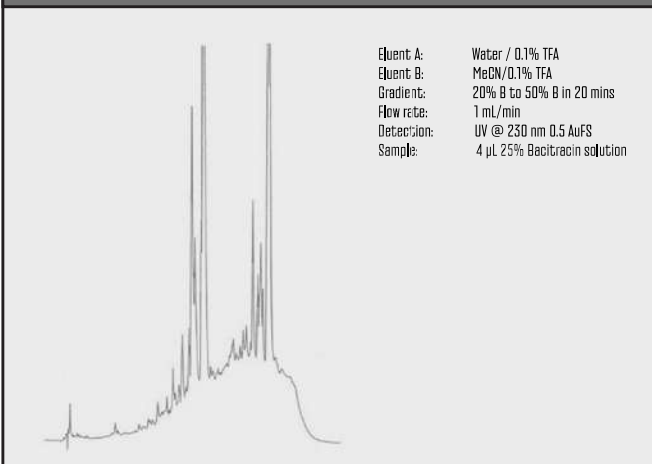
Vintage BIO Aqua

Vintage BIO Aqua columns are engineered for advanced bioseparations requiring high aqueous stability and reliable performance with large biomolecules. These columns feature ether-linked aliphatic groups bonded to ultra-high purity silica, now offered in 400 Å, 700 Å, and 1200 Å pore sizes to accommodate a wide range of proteins, peptides, glycoproteins, tryptic digests, and hemoglobin variants. The innovative bonding chemistry ensures the stationary phase is highly resistant to phase collapse, even when using 100% aqueous mobile phases—a critical advantage for the separation of hydrophilic and water-soluble biomolecules.

With their robust design and optimized pore structure, Vintage BIO Aqua columns provide excellent retention and resolution for challenging biological samples. The combination of large pore diameters and phase collapse resistance makes them ideal for high-throughput proteomics, biopharmaceutical analysis, and the characterization of complex mixtures in life science research.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Vintage BIO Aqua	50	3	3	400	5131J1-BAQ
Vintage BIO Aqua	50	3	3	700	5131K1-BAQ
Vintage BIO Aqua	50	3	5	400	5132J1-BAQ
Vintage BIO Aqua	50	3	5	700	5132K1-BAQ
Vintage BIO Aqua	50	3	5	1200	5132Q1-BAQ
Vintage BIO Aqua	50	4.6	3	400	1151J1-BAQ
Vintage BIO Aqua	50	4.6	3	700	1151K1-BAQ
Vintage BIO Aqua	50	4.6	5	400	1152J1-BAQ
Vintage BIO Aqua	50	4.6	5	700	1152K1-BAQ
Vintage BIO Aqua	50	4.6	5	1200	1152Q1-BAQ
Vintage BIO Aqua	100	3	3	400	5231J1-BAQ
Vintage BIO Aqua	100	3	3	700	5231K1-BAQ
Vintage BIO Aqua	100	3	5	400	5232J1-BAQ
Vintage BIO Aqua	100	3	5	700	5232K1-BAQ
Vintage BIO Aqua	100	3	5	1200	5232Q1-BAQ
Vintage BIO Aqua	100	4.6	3	400	1251J1-BAQ
Vintage BIO Aqua	100	4.6	3	700	1251K1-BAQ
Vintage BIO Aqua	100	4.6	5	400	1252J1-BAQ
Vintage BIO Aqua	100	4.6	5	700	1252K1-BAQ
Vintage BIO Aqua	100	4.6	5	1200	1252Q1-BAQ
Vintage BIO Aqua	150	3	3	400	5331J1-BAQ
Vintage BIO Aqua	150	3	3	700	5331K1-BAQ
Vintage BIO Aqua	150	3	5	400	5332J1-BAQ
Vintage BIO Aqua	150	3	5	700	5332K1-BAQ
Vintage BIO Aqua	150	3	5	1200	5332Q1-BAQ
Vintage BIO Aqua	150	4.6	3	400	1351J1-BAQ
Vintage BIO Aqua	150	4.6	3	700	1351K1-BAQ
Vintage BIO Aqua	150	4.6	5	400	1352J1-BAQ
Vintage BIO Aqua	150	4.6	5	700	1352K1-BAQ
Vintage BIO Aqua	150	4.6	5	1200	1352Q1-BAQ
Vintage BIO Aqua	250	4.6	5	400	1552J1-BAQ
Vintage BIO Aqua	250	4.6	5	700	1552K1-BAQ
Vintage BIO Aqua	250	4.6	5	1200	1552Q1-BAQ
Vintage BIO Aqua	10	2	5	1200	500103
Vintage BIO Aqua	10	3	5	1200	500101

HPLC analysis of bacitracin using Vintage BIO Aqua,
250 x 4.6 mm, 5 µm.



Other column dimensions, particle sizes, and guard cartridges are available please contact
LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Vintage BIO C18

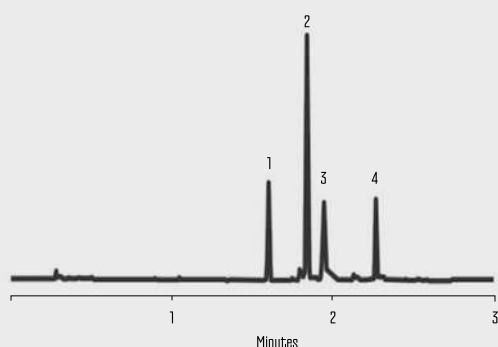
Vintage BIO C18 elevates bioselective reversed-phase chromatography by combining ultra-high purity silica with advanced bonding technology. This hydrophobic C18 phase is purpose-built for biopharmaceutical and biochemical applications, delivering outstanding performance for the separation of proteins, high molecular weight peptides, and oligonucleic acids. Vintage BIO C18 is specifically engineered to provide high recoveries and excellent peak shapes, even for the most challenging biomolecular separations. Its robust design ensures reliable and reproducible results, making it an ideal solution for laboratories focused on complex biological analyses and demanding purification workflows.

HPLC analysis of biomolecules using Vintage BIO C18, 250 x 4.6 mm, 5 µm.

Peak Identification

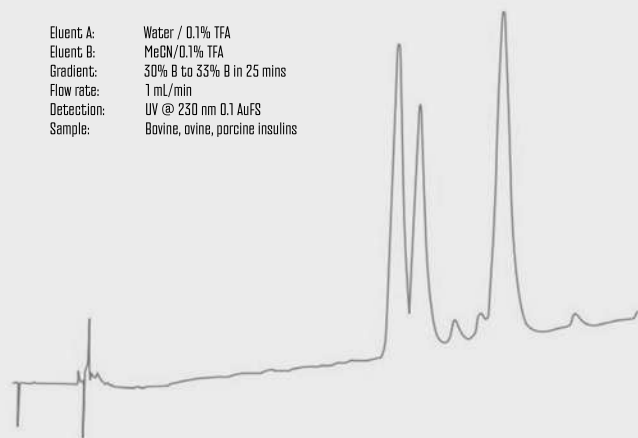
1. Ribonuclease A
2. Cytochrome C
3. Holo-transferrin
4. Apomyoglobin

Mobile phase: A: 0.1% TFA in H₂O
B: 0.1% TFA in MeCN
Time / %B: 0/5, 30/70
Flow rate: 1.0 mL/min
Detection: UV @ 280 nm



HPLC analysis of insulins using Vintage BIO C18, 250 x 4.6 mm, 5 µm

Eluent A: Water / 0.1% TFA
Eluent B: MeCN/0.1% TFA
Gradient: 30% B to 33% B in 25 mins
Flow rate: 1 mL/min
Detection: UV @ 230 nm 0.1 AUFS
Sample: Bovine, ovine, porcine insulins



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Vintage BIO C18	50	3	3	400	5131J1-BC18
Vintage BIO C18	50	3	3	700	5131K1-BC18
Vintage BIO C18	50	3	5	400	5132J1-BC18
Vintage BIO C18	50	3	5	700	5132K1-BC18
Vintage BIO C18	50	3	5	1200	5132Q1-BC18
Vintage BIO C18	50	4.6	3	400	1151J1-BC18
Vintage BIO C18	50	4.6	3	700	1151K1-BC18
Vintage BIO C18	50	4.6	5	400	1152J1-BC18
Vintage BIO C18	50	4.6	5	700	1152K1-BC18
Vintage BIO C18	50	4.6	5	1200	1152Q1-BC18
Vintage BIO C18	100	3	3	400	5231J1-BC18
Vintage BIO C18	100	3	3	700	5231K1-BC18
Vintage BIO C18	100	3	5	400	5232J1-BC18
Vintage BIO C18	100	3	5	700	5232K1-BC18
Vintage BIO C18	100	3	5	1200	5232Q1-BC18
Vintage BIO C18	100	4.6	3	400	1251J1-BC18
Vintage BIO C18	100	4.6	3	700	1251K1-BC18
Vintage BIO C18	100	4.6	5	400	1252J1-BC18
Vintage BIO C18	100	4.6	5	700	1252K1-BC18
Vintage BIO C18	100	4.6	5	1200	1252Q1-BC18
Vintage BIO C18	150	3	3	400	5331J1-BC18
Vintage BIO C18	150	3	3	700	5331K1-BC18
Vintage BIO C18	150	3	5	400	5332J1-BC18
Vintage BIO C18	150	3	5	700	5332K1-BC18
Vintage BIO C18	150	3	5	1200	5332Q1-BC18
Vintage BIO C18	150	4.6	3	400	1351J1-BC18
Vintage BIO C18	150	4.6	3	700	1351K1-BC18
Vintage BIO C18	150	4.6	5	400	1352J1-BC18
Vintage BIO C18	150	4.6	5	700	1352K1-BC18
Vintage BIO C18	150	4.6	5	1200	1352Q1-BC18
Vintage BIO C18	250	4.6	5	400	1552J1-BC18
Vintage BIO C18	250	4.6	5	700	1552K1-BC18
Vintage BIO C18	250	4.6	5	1200	1552Q1-BC18
Vintage BIO C18	10	2	5	1200	500103
Vintage BIO C18	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

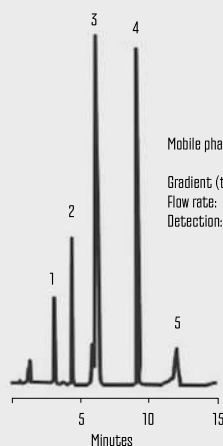
Vintage BIO C8

Vintage BIO C8 is a wide-pore, bioselective HPLC column designed for the efficient separation of a broad range of biological and biopharmaceutical compounds. Utilizing ultra-high purity silica and advanced bonding technology, this C8 phase is less hydrophobic than C18, often enabling faster separations and improved method flexibility. Vintage BIO C8 is ideal for the analysis of hydrophobic proteins, high molecular weight peptides, and other challenging biomolecules, delivering high recoveries and excellent peak shapes even for difficult separations.

Engineered for modern bioanalytical workflows, Vintage BIO C8 provides robust performance for a variety of biological molecules, including peptides, proteins, and biotherapeutics. Its optimized surface chemistry and wide pore structure make it especially suitable for large biomolecules, ensuring reproducible results and reliable purification or analytical separations in both research and quality control environments.

HPLC analysis of biomolecules using Vintage BIO C8, 250 mm x 4.6 mm, 5 µm.

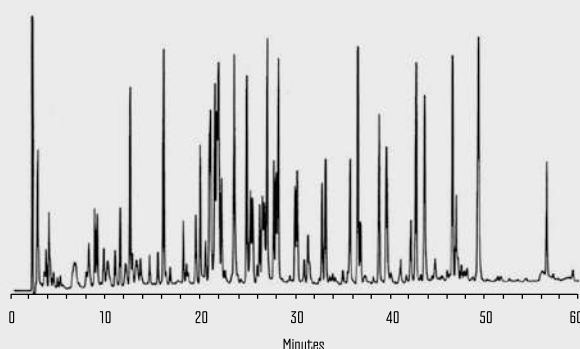
Peak Identification
 1. Ribonuclease A
 2. Insulin
 3. Lysozyme
 4. Myoglobin
 5. Ovalbumin



Mobile phase: A: 0.1% TFA in H₂O
 B: 0.1% TFA in ACN
 Gradient (time:%B): 0 mins:25% to 30 mins:100%
 Flow rate: 1.5 mL/min
 Detection: UV @ 254 nm

HPLC analysis of tryptic digest fragments using Vintage BIO C8, 150 x 4.6 mm, 5 µm.

Mobile phase: A: 0.1% TFA in water
 B: 0.1% TFA in 80% acetonitrile / 20% water
 Linear gradient, 2-62% B in 70 min
 Flow rate: 1 mL/min
 Temperature: 50 °C
 Sample: 50 pmol of BSA digest in 4M urea



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Vintage BIO C8	50	3	3	400	5131J1-BC8
Vintage BIO C8	50	3	3	700	5131K1-BC8
Vintage BIO C8	50	3	5	400	5132J1-BC8
Vintage BIO C8	50	3	5	700	5132K1-BC8
Vintage BIO C8	50	3	5	1200	5132Q1-BC8
Vintage BIO C8	50	4.6	3	400	1151J1-BC8
Vintage BIO C8	50	4.6	3	700	1151K1-BC8
Vintage BIO C8	50	4.6	5	400	1152J1-BC8
Vintage BIO C8	50	4.6	5	700	1152K1-BC8
Vintage BIO C8	50	4.6	5	1200	1152Q1-BC8
Vintage BIO C8	100	3	3	400	5231J1-BC8
Vintage BIO C8	100	3	3	700	5231K1-BC8
Vintage BIO C8	100	3	5	400	5232J1-BC8
Vintage BIO C8	100	3	5	700	5232K1-BC8
Vintage BIO C8	100	3	5	1200	5232Q1-BC8
Vintage BIO C8	100	4.6	3	400	1251J1-BC8
Vintage BIO C8	100	4.6	3	700	1251K1-BC8
Vintage BIO C8	100	4.6	5	400	1252J1-BC8
Vintage BIO C8	100	4.6	5	700	1252K1-BC8
Vintage BIO C8	100	4.6	5	1200	1252Q1-BC8
Vintage BIO C8	150	3	3	400	5331J1-BC8
Vintage BIO C8	150	3	3	700	5331K1-BC8
Vintage BIO C8	150	3	5	400	5332J1-BC8
Vintage BIO C8	150	3	5	700	5332K1-BC8
Vintage BIO C8	150	3	5	1200	5332Q1-BC8
Vintage BIO C8	150	4.6	3	400	1351J1-BC8
Vintage BIO C8	150	4.6	3	700	1351K1-BC8
Vintage BIO C8	150	4.6	5	400	1352J1-BC8
Vintage BIO C8	150	4.6	5	700	1352K1-BC8
Vintage BIO C8	150	4.6	5	1200	1352Q1-BC8
Vintage BIO C8	250	4.6	5	400	1552J1-BC8
Vintage BIO C8	250	4.6	5	700	1552K1-BC8
Vintage BIO C8	250	4.6	5	1200	1552Q1-BC8
Vintage BIO C8	10	2	5	1200	500103
Vintage BIO C8	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

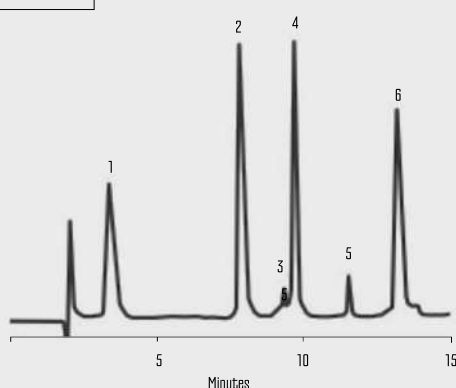
Vintage BIO C4

Vintage BIO C4 is the least hydrophobic among the alkyl phases in the Vintage BIO line and is specifically designed for biopharmaceutical and biochemical applications. Now available in 400 Å, 700 Å, and 1200 Å pore sizes, this column is ideal for the separation of high molecular weight peptides and proteins, particularly when highly aqueous mobile phases are required. Vintage BIO C4 offers enhanced stability under high aqueous conditions, making it suitable for challenging bioseparations and for reducing analysis times without compromising recovery or peak shape. Its advanced bonding chemistry and wide pore structure ensure reliable performance and reproducibility for demanding biomolecule separations across a variety of research and quality control environments.

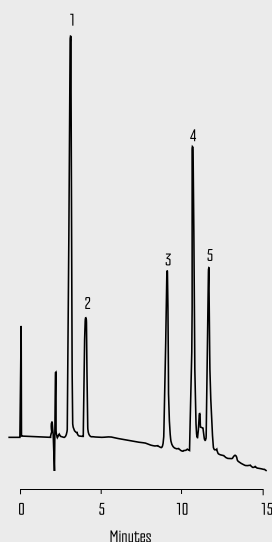
HPLC analysis of biomolecules using Vintage BIO C4, 150 mm x 4.6 mm, 5 µm.

- Peak Identification**
1. Ribonuclease A
 2. Cytochrome C
 3. Lysozyme Impurity
 4. Lysozyme
 5. Myoglobin Impurity
 6. Myoglobin

Mobile phase: A: 0.15% TFA
B: 0.13% TFA in ACN:H₂O (95:5)
Gradient (time:%B): 0.30, 15:60
Flow rate: 1.0 mL/min
Detection: UV @ 220 nm



HPLC analysis of peptides using Vintage BIO C4, 150 x 4.6 mm, 5 µm.



Mobile phase: A - 0.1% TFA
B - 90/10 CH₃ CN/H₂O, 0.1% TFA

Time (min)	%A	%B
0	75	5
20	50	50
25	75	25

Flow rate: 1 mL/min
Detection: UV @ 210 nm x 1.0 AuF
Temperature: 23 °C
Injection vol: 20 µL

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Vintage BIO C4	50	3	3	400	5131J1-BC4
Vintage BIO C4	50	3	3	700	5131K1-BC4
Vintage BIO C4	50	3	5	400	5132J1-BC4
Vintage BIO C4	50	3	5	700	5132K1-BC4
Vintage BIO C4	50	3	5	1200	5132Q1-BC4
Vintage BIO C4	50	4.6	3	400	1151J1-BC4
Vintage BIO C4	50	4.6	3	700	1151K1-BC4
Vintage BIO C4	50	4.6	5	400	1152J1-BC4
Vintage BIO C4	50	4.6	5	700	1152K1-BC4
Vintage BIO C4	50	4.6	5	1200	1152Q1-BC4
Vintage BIO C4	100	3	3	400	5231J1-BC4
Vintage BIO C4	100	3	3	700	5231K1-BC4
Vintage BIO C4	100	3	5	400	5232J1-BC4
Vintage BIO C4	100	3	5	700	5232K1-BC4
Vintage BIO C4	100	3	5	1200	5232Q1-BC4
Vintage BIO C4	100	4.6	3	400	1251J1-BC4
Vintage BIO C4	100	4.6	3	700	1251K1-BC4
Vintage BIO C4	100	4.6	5	400	1252J1-BC4
Vintage BIO C4	100	4.6	5	700	1252K1-BC4
Vintage BIO C4	100	4.6	5	1200	1252Q1-BC4
Vintage BIO C4	150	3	3	400	5331J1-BC4
Vintage BIO C4	150	3	3	700	5331K1-BC4
Vintage BIO C4	150	3	5	400	5332J1-BC4
Vintage BIO C4	150	3	5	700	5332K1-BC4
Vintage BIO C4	150	3	5	1200	5332Q1-BC4
Vintage BIO C4	150	4.6	3	400	1351J1-BC4
Vintage BIO C4	150	4.6	3	700	1351K1-BC4
Vintage BIO C4	150	4.6	5	400	1352J1-BC4
Vintage BIO C4	150	4.6	5	700	1352K1-BC4
Vintage BIO C4	150	4.6	5	1200	1352Q1-BC4
Vintage BIO C4	250	4.6	5	400	1552J1-BC4
Vintage BIO C4	250	4.6	5	700	1552K1-BC4
Vintage BIO C4	250	4.6	5	1200	1552Q1-BC4
Vintage BIO C4	10	2	5	1200	500103
Vintage BIO C4	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

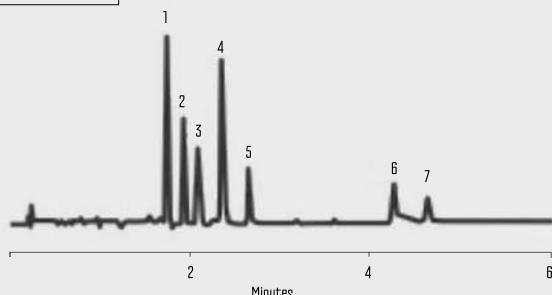
Vintage BIO Naphthyl

Vintage BIO Naphthyl is engineered for high-efficiency bioseparations, utilizing bonded planar naphthalene groups to deliver the highest bonding density and surface coverage among the Vintage BIO phases. This unique structure provides maximum hydrophobic interaction and superior inertness, making it exceptionally well-suited for the separation of high molecular weight peptides and oligonucleic acids. Vintage BIO Naphthyl supports a variety of solute interactions, including strong π - π and hydrophobic mechanisms, enabling precise and reproducible separations for complex biomolecules. Its advanced design ensures optimal performance for demanding bioanalytical and biopharmaceutical workflows, where both selectivity and recovery are critical.

HPLC analysis of biomolecules using Vintage BIO Naphthyl, 250 mm x 4.6 mm, 5 μ m.

Peak Identification
1. Methionin Enkephalin
2. Oxytocin
3. Leucin Enkephalin
4. Angiotensin II
5. Angiotensin I
6. Insulin
7. Insulin Chain B

Mobile phase: A: 0.05% formic acid
(0.05% formic acid in solvent B)
B: ACN:water (90:10)
Gradient (time:%B): 0-10, 60:40
Flow rate: 1.0 mL/min
Detection: UV @ 280 nm



Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Pore Size ($\text{\AA}$)	Part Number
Vintage BIO Naphthyl	50	3	3	400	5131J1-BNAP
Vintage BIO Naphthyl	50	3	3	700	5131K1-BNAP
Vintage BIO Naphthyl	50	3	5	400	5132J1-BNAP
Vintage BIO Naphthyl	50	3	5	700	5132K1-BNAP
Vintage BIO Naphthyl	50	3	5	1200	5132Q1-BNAP
Vintage BIO Naphthyl	50	4.6	3	400	1151J1-BNAP
Vintage BIO Naphthyl	50	4.6	3	700	1151K1-BNAP
Vintage BIO Naphthyl	50	4.6	5	400	1152J1-BNAP
Vintage BIO Naphthyl	50	4.6	5	700	1152K1-BNAP
Vintage BIO Naphthyl	50	4.6	5	1200	1152Q1-BNAP
Vintage BIO Naphthyl	100	3	3	400	5231J1-BNAP
Vintage BIO Naphthyl	100	3	3	700	5231K1-BNAP
Vintage BIO Naphthyl	100	3	5	400	5232J1-BNAP
Vintage BIO Naphthyl	100	3	5	700	5232K1-BNAP
Vintage BIO Naphthyl	100	3	5	1200	5232Q1-BNAP
Vintage BIO Naphthyl	100	4.6	3	400	1251J1-BNAP
Vintage BIO Naphthyl	100	4.6	3	700	1251K1-BNAP
Vintage BIO Naphthyl	100	4.6	5	400	1252J1-BNAP
Vintage BIO Naphthyl	100	4.6	5	700	1252K1-BNAP
Vintage BIO Naphthyl	100	4.6	5	1200	1252Q1-BNAP
Vintage BIO Naphthyl	150	3	3	400	5331J1-BNAP
Vintage BIO Naphthyl	150	3	3	700	5331K1-BNAP
Vintage BIO Naphthyl	150	3	5	400	5332J1-BNAP
Vintage BIO Naphthyl	150	3	5	700	5332K1-BNAP
Vintage BIO Naphthyl	150	3	5	1200	5332Q1-BNAP
Vintage BIO Naphthyl	150	4.6	3	400	1351J1-BNAP
Vintage BIO Naphthyl	150	4.6	3	700	1351K1-BNAP
Vintage BIO Naphthyl	150	4.6	5	400	1352J1-BNAP
Vintage BIO Naphthyl	150	4.6	5	700	1352K1-BNAP
Vintage BIO Naphthyl	150	4.6	5	1200	1352Q1-BNAP
Vintage BIO Naphthyl	250	4.6	5	400	1552J1-BNAP
Vintage BIO Naphthyl	250	4.6	5	700	1552K1-BNAP
Vintage BIO Naphthyl	250	4.6	5	1200	1552Q1-BNAP
Vintage BIO Naphthyl	10	2	5	1200	500103
Vintage BIO Naphthyl	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

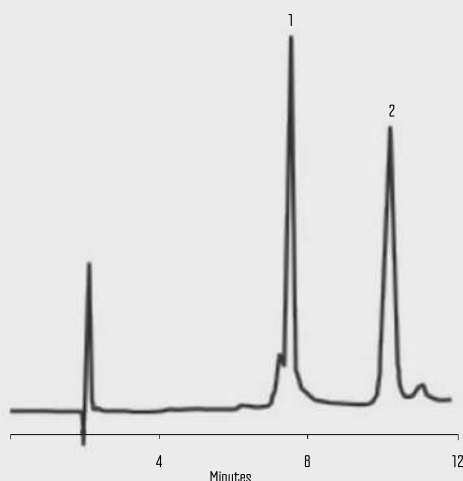
Vintage BIO Biphenyl

Vintage BIO Biphenyl columns are designed with bonded biphenyl groups at high bonding density, providing robust n-n and hydrophobic interactions for a wide range of bio-pharmaceutical and biochemical applications. This phase is less hydrophobic than Vintage BIO Naphthyl, offering a unique selectivity profile that is especially effective for the separation of large biomolecules such as peptides and proteins with aromatic or conjugated structures. Vintage BIO Biphenyl delivers reliable retention and resolution for complex biological samples, making it an excellent choice for researchers seeking enhanced aromatic selectivity and reproducibility in bioseparations.

HPLC analysis of D-chymotrypsinogen and carbonic anhydrase using Vintage BIO Biphenyl, 150 mm x 4.6 mm, 5 µm.

Peak Identification
1. D-Chymotrypsinogen
2. Carbonic anhydrase

Mobile phase: A: 0.15% TFA in H₂O
B: 0.13% TFA in ACN
Gradient(time:%B): 0:40, 15:55
Flow rate: 1.0 mL/min
Detection: UV @ 220 nm



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Vintage BIO Biphenyl	50	3	3	400	5131J1-BBPH
Vintage BIO Biphenyl	50	3	3	700	5131K1-BBPH
Vintage BIO Biphenyl	50	3	5	400	5132J1-BBPH
Vintage BIO Biphenyl	50	3	5	700	5132K1-BBPH
Vintage BIO Biphenyl	50	3	5	1200	5132Q1-BBPH
Vintage BIO Biphenyl	50	4.6	3	400	1151J1-BBPH
Vintage BIO Biphenyl	50	4.6	3	700	1151K1-BBPH
Vintage BIO Biphenyl	50	4.6	5	400	1152J1-BBPH
Vintage BIO Biphenyl	50	4.6	5	700	1152K1-BBPH
Vintage BIO Biphenyl	50	4.6	5	1200	1152Q1-BBPH
Vintage BIO Biphenyl	100	3	3	400	5231J1-BBPH
Vintage BIO Biphenyl	100	3	3	700	5231K1-BBPH
Vintage BIO Biphenyl	100	3	5	400	5232J1-BBPH
Vintage BIO Biphenyl	100	3	5	700	5232K1-BBPH
Vintage BIO Biphenyl	100	3	5	1200	5232Q1-BBPH
Vintage BIO Biphenyl	100	4.6	3	400	1251J1-BBPH
Vintage BIO Biphenyl	100	4.6	3	700	1251K1-BBPH
Vintage BIO Biphenyl	100	4.6	5	400	1252J1-BBPH
Vintage BIO Biphenyl	100	4.6	5	700	1252K1-BBPH
Vintage BIO Biphenyl	100	4.6	5	1200	1252Q1-BBPH
Vintage BIO Biphenyl	150	3	3	400	5331J1-BBPH
Vintage BIO Biphenyl	150	3	3	700	5331K1-BBPH
Vintage BIO Biphenyl	150	3	5	400	5332J1-BBPH
Vintage BIO Biphenyl	150	3	5	700	5332K1-BBPH
Vintage BIO Biphenyl	150	3	5	1200	5332Q1-BBPH
Vintage BIO Biphenyl	150	4.6	3	400	1351J1-BBPH
Vintage BIO Biphenyl	150	4.6	3	700	1351K1-BBPH
Vintage BIO Biphenyl	150	4.6	5	400	1352J1-BBPH
Vintage BIO Biphenyl	150	4.6	5	700	1352K1-BBPH
Vintage BIO Biphenyl	150	4.6	5	1200	1352Q1-BBPH
Vintage BIO Biphenyl	250	4.6	5	400	1552J1-BBPH
Vintage BIO Biphenyl	250	4.6	5	700	1552K1-BBPH
Vintage BIO Biphenyl	250	4.6	5	1200	1552Q1-BBPH
Vintage BIO Biphenyl	10	2	5	1200	500103
Vintage BIO Biphenyl	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage BIO Diphenyl

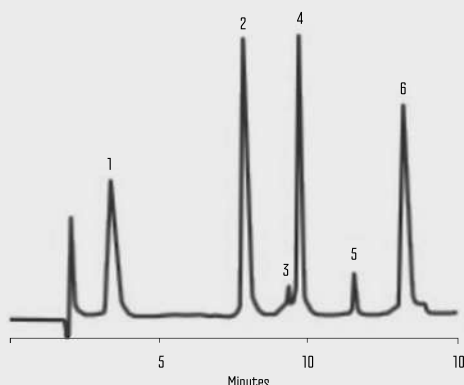
The Vintage BIO Diphenyl has the lowest bonding density and one of the lowest hydrophobicities of any Vintage BIO phenyl phases. It provides some site-specific phenyl interactions dependant on the molecular configuration of the target and can resolve many classes of proteins and bio-polymers.

The Vintage BIO has a unique phenyl ring configuration and may provide some site-specific interactions and a variety of solute interactions including n-n and hydrophobic going well beyond the simple hydrophobic interaction of Vintage BIO alkyl phases. Vintage BIO Diphenyl is designed for biopharmaceutical and bio-chemical applications.

HPLC analysis of biomolecules using Vintage BIO Diphenyl,
150 x 4.6 mm, 5 µm

Peak Identification
1. Ribonuclease A
2. Cytochrome C
3. Lysozyme impurity
4. Lysozyme
5. Myoglobin impurity
6. Myoglobin

Mobile phase: A: 0.15% TFA
B: 0.13% TFA in ACN:H₂O (95:5)
Gradient(time:%B): 0:50, 15:60
Flow rate: 1.0 mL/min



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Vintage BIO Diphenyl	50	3	3	400	5131J1-BDPH
Vintage BIO Diphenyl	50	3	3	700	5131K1-BDPH
Vintage BIO Diphenyl	50	3	5	400	5132J1-BDPH
Vintage BIO Diphenyl	50	3	5	700	5132K1-BDPH
Vintage BIO Diphenyl	50	3	5	1200	5132Q1-BDPH
Vintage BIO Diphenyl	50	4.6	3	400	1151J1-BDPH
Vintage BIO Diphenyl	50	4.6	3	700	1151K1-BDPH
Vintage BIO Diphenyl	50	4.6	5	400	1152J1-BDPH
Vintage BIO Diphenyl	50	4.6	5	700	1152K1-BDPH
Vintage BIO Diphenyl	50	4.6	5	1200	1152Q1-BDPH
Vintage BIO Diphenyl	100	3	3	400	5231J1-BDPH
Vintage BIO Diphenyl	100	3	3	700	5231K1-BDPH
Vintage BIO Diphenyl	100	3	5	400	5232J1-BDPH
Vintage BIO Diphenyl	100	3	5	700	5232K1-BDPH
Vintage BIO Diphenyl	100	3	5	1200	5232Q1-BDPH
Vintage BIO Diphenyl	100	4.6	3	400	1251J1-BDPH
Vintage BIO Diphenyl	100	4.6	3	700	1251K1-BDPH
Vintage BIO Diphenyl	100	4.6	5	400	1252J1-BDPH
Vintage BIO Diphenyl	100	4.6	5	700	1252K1-BDPH
Vintage BIO Diphenyl	100	4.6	5	1200	1252Q1-BDPH
Vintage BIO Diphenyl	150	3	3	400	5331J1-BDPH
Vintage BIO Diphenyl	150	3	3	700	5331K1-BDPH
Vintage BIO Diphenyl	150	3	5	400	5332J1-BDPH
Vintage BIO Diphenyl	150	3	5	700	5332K1-BDPH
Vintage BIO Diphenyl	150	3	5	1200	5332Q1-BDPH
Vintage BIO Diphenyl	150	4.6	3	400	1351J1-BDPH
Vintage BIO Diphenyl	150	4.6	3	700	1351K1-BDPH
Vintage BIO Diphenyl	150	4.6	5	400	1352J1-BDPH
Vintage BIO Diphenyl	150	4.6	5	700	1352K1-BDPH
Vintage BIO Diphenyl	150	4.6	5	1200	1352Q1-BDPH
Vintage BIO Diphenyl	250	4.6	5	400	1552J1-BDPH
Vintage BIO Diphenyl	250	4.6	5	700	1552K1-BDPH
Vintage BIO Diphenyl	250	4.6	5	1200	1552Q1-BDPH
Vintage BIO Diphenyl	10	2	5	1200	500103
Vintage BIO Diphenyl	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact
LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

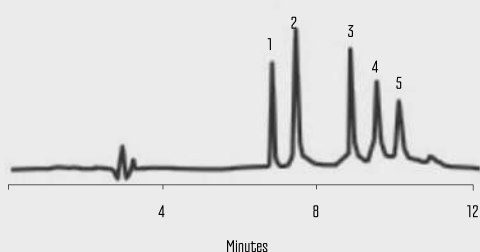
Vintage BIO HPR

Vintage BIO HPR is the most hydrophilic phase in the Vintage BIO line, specifically engineered to minimize hydrophobic interactions and deliver rapid, high-recovery separations of hydrophobic biological molecules. This column features unique perfluorinated aliphatic bonded groups, which significantly reduce the retention of hydrophobic proteins, lipid peptides, polypeptides with aliphatic side chains, and membrane-spanning peptides. The result is improved recoveries and faster analysis times, making Vintage BIO HPR ideal for challenging bioanalytical workflows. In addition, its highly hydrophilic character makes it especially suitable for the analysis of fluorine-modified biologics, taking advantage of fluorophilicity interactions to enhance selectivity and performance in specialized applications.

HPLC analysis of biomolecules using Vintage BIO HPR,
250 x 4.6 mm, 5 µm.

Peak Identification
1. Insulin
2. Trypsinogen
3. Lactalbumin
4. Myoglobin
5. Carbonic anhydrase

Mobile phase: A: 0.01% TFA in H₂O
B: 0.01% TFA in ACN
Gradient (time:%B): 0:25, 20:95
Flow rate: 1.0 mL/min
Detection: UV @ 214 nm



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Vintage BIO HPR	50	3	3	400	5131J1-BHPR
Vintage BIO HPR	50	3	3	700	5131K1-BHPR
Vintage BIO HPR	50	3	5	400	5132J1-BHPR
Vintage BIO HPR	50	3	5	700	5132K1-BHPR
Vintage BIO HPR	50	3	5	1200	5132Q1-BHPR
Vintage BIO HPR	50	4.6	3	400	1151J1-BHPR
Vintage BIO HPR	50	4.6	3	700	1151K1-BHPR
Vintage BIO HPR	50	4.6	5	400	1152J1-BHPR
Vintage BIO HPR	50	4.6	5	700	1152K1-BHPR
Vintage BIO HPR	50	4.6	5	1200	1152Q1-BHPR
Vintage BIO HPR	100	3	3	400	5231J1-BHPR
Vintage BIO HPR	100	3	3	700	5231K1-BHPR
Vintage BIO HPR	100	3	5	400	5232J1-BHPR
Vintage BIO HPR	100	3	5	700	5232K1-BHPR
Vintage BIO HPR	100	3	5	1200	5232Q1-BHPR
Vintage BIO HPR	100	4.6	3	400	1251J1-BHPR
Vintage BIO HPR	100	4.6	3	700	1251K1-BHPR
Vintage BIO HPR	100	4.6	5	400	1252J1-BHPR
Vintage BIO HPR	100	4.6	5	700	1252K1-BHPR
Vintage BIO HPR	100	4.6	5	1200	1252Q1-BHPR
Vintage BIO HPR	150	3	3	400	5331J1-BHPR
Vintage BIO HPR	150	3	3	700	5331K1-BHPR
Vintage BIO HPR	150	3	5	400	5332J1-BHPR
Vintage BIO HPR	150	3	5	700	5332K1-BHPR
Vintage BIO HPR	150	3	5	1200	5332Q1-BHPR
Vintage BIO HPR	150	4.6	3	400	1351J1-BHPR
Vintage BIO HPR	150	4.6	3	700	1351K1-BHPR
Vintage BIO HPR	150	4.6	5	400	1352J1-BHPR
Vintage BIO HPR	150	4.6	5	700	1352K1-BHPR
Vintage BIO HPR	150	4.6	5	1200	1352Q1-BHPR
Vintage BIO HPR	250	4.6	5	400	1552J1-BHPR
Vintage BIO HPR	250	4.6	5	700	1552K1-BHPR
Vintage BIO HPR	250	4.6	5	1200	1552Q1-BHPR
Vintage BIO HPR	10	2	5	1200	500103
Vintage BIO HPR	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact
LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage BIO PFP

Vintage BIO PFP is a pentafluorophenyl (PFP) stationary phase designed for advanced bioseparations requiring strong π - π interactions and fluorophilicity. As the most hydrophilic phase in the Vintage BIO phenyl series, it excels in resolving fluorine-modified biologics and complex natural compounds, leveraging its unique fluorinated chemistry to achieve selectivity orthogonal to traditional alkyl phases like C18 or C8.

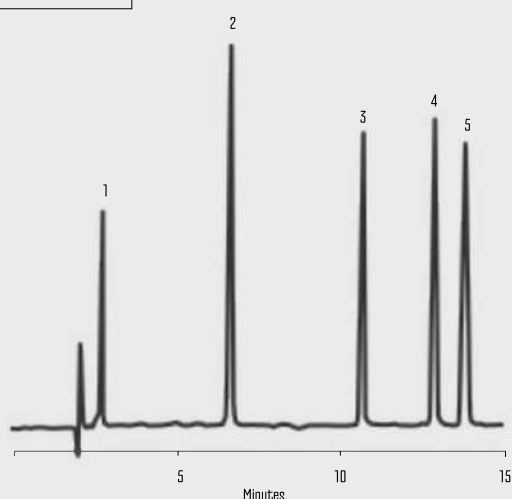
This phase is particularly effective for challenging separations where conventional reversed-phase columns fail, such as distinguishing closely related metabolites in biological matrices or analyzing biotherapeutics with fluorinated modifications. Its robust bonding technology ensures durability and reproducibility, making it a critical tool for method development in biopharmaceutical research, natural product characterization, and environmental analysis of halogenated compounds.

By combining high hydrophilicity with exceptional aromatic selectivity, Vintage BIO PFP addresses gaps in conventional workflows, offering a reliable solution for laboratories focused on precision and innovation in biomolecule chromatography.

HPLC analysis of various peptides using Vintage BIO PFP, 150 x 4.6 mm, 5 μ m.

Peak Identification
 1. GLY-TYR
 2. VAL-TYR-VAL
 3. Methionine enkephalin
 4. Leucine enkephalin
 5. Angiotensin II

Mobile phase: A: 0.15% TFA in H₂O
 B: 0.13% TFA in ACN
 Gradient (time:%B): 0-10, 15-30
 Flow rate: 1.0 mL/min
 Detection: UV @ 220 nm



Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Pore Size (Å)	Part Number
Vintage BIO PFP	50	3	3	400	5131J1-BPFP
Vintage BIO PFP	50	3	3	700	5131K1-BPFP
Vintage BIO PFP	50	3	5	400	5132J1-BPFP
Vintage BIO PFP	50	3	5	700	5132K1-BPFP
Vintage BIO PFP	50	3	5	1200	5132Q1-BPFP
Vintage BIO PFP	50	4.6	3	400	1151J1-BPFP
Vintage BIO PFP	50	4.6	3	700	1151K1-BPFP
Vintage BIO PFP	50	4.6	5	400	1152J1-BPFP
Vintage BIO PFP	50	4.6	5	700	1152K1-BPFP
Vintage BIO PFP	50	4.6	5	1200	1152Q1-BPFP
Vintage BIO PFP	100	3	3	400	5231J1-BPFP
Vintage BIO PFP	100	3	3	700	5231K1-BPFP
Vintage BIO PFP	100	3	5	400	5232J1-BPFP
Vintage BIO PFP	100	3	5	700	5232K1-BPFP
Vintage BIO PFP	100	3	5	1200	5232Q1-BPFP
Vintage BIO PFP	100	4.6	3	400	1251J1-BPFP
Vintage BIO PFP	100	4.6	3	700	1251K1-BPFP
Vintage BIO PFP	100	4.6	5	400	1252J1-BPFP
Vintage BIO PFP	100	4.6	5	700	1252K1-BPFP
Vintage BIO PFP	100	4.6	5	1200	1252Q1-BPFP
Vintage BIO PFP	150	3	3	400	5331J1-BPFP
Vintage BIO PFP	150	3	3	700	5331K1-BPFP
Vintage BIO PFP	150	3	5	400	5332J1-BPFP
Vintage BIO PFP	150	3	5	700	5332K1-BPFP
Vintage BIO PFP	150	3	5	1200	5332Q1-BPFP
Vintage BIO PFP	150	4.6	3	400	1351J1-BPFP
Vintage BIO PFP	150	4.6	3	700	1351K1-BPFP
Vintage BIO PFP	150	4.6	5	400	1352J1-BPFP
Vintage BIO PFP	150	4.6	5	700	1352K1-BPFP
Vintage BIO PFP	150	4.6	5	1200	1352Q1-BPFP
Vintage BIO PFP	250	4.6	5	400	1552J1-BPFP
Vintage BIO PFP	250	4.6	5	700	1552K1-BPFP
Vintage BIO PFP	250	4.6	5	1200	1552Q1-BPFP
Vintage BIO PFP	10	2	5	1200	500103
Vintage BIO PFP	10	3	5	1200	500101

Other column dimensions, particle sizes, and guard cartridges are available please contact LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent



VINTAGE
SEC

Vintage Molecular Size Exclusion (SEC) Columns

Vintage SEC columns are designed for high-performance size exclusion chromatography (SEC), enabling the separation of molecules based strictly on their size. The Vintage SEC series offers a comprehensive selection of molecular size exclusion (MSE) columns in a wide variety of particle and pore sizes, accommodating a broad range of analytical needs. These columns are available with silica, TMS (trimethylsilyl) bonded to silica, or diol-bonded silica packings to provide optimal performance for different sample types.

Silica and TMS-bonded Vintage SEC columns are recommended for the analysis of organic-soluble polymers, delivering reliable and reproducible separations for synthetic and industrial polymer applications. For water-soluble samples—such as proteins, peptides, and water-soluble synthetic polymers—Vintage SEC Diol columns are the preferred choice, offering excellent selectivity and compatibility with aqueous mobile phases. All Vintage SEC packings can be packed into columns of various dimensions and are available in a range of pore sizes from 60 Å to 1000 Å, ensuring flexibility and scalability for both research and quality control laboratories.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Features and Benefits

- Five pore sizes (60, 100, 300, 500, and 1000 Å) to allow separation of molecules of different size
- Three phases (Diol, Silica, and TMS) to accommodate both aqueous and organic soluble samples

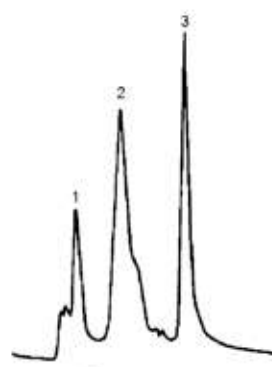
Material Characteristics

Brand	Phase	Particle Size (µm)	Pore Size (Å)	End Cap	pH Range
VintagePore MSE	Diol	5	60, 100, 300, 500, 1000	No	2-8
VintagePore MSE	Silica	5	60, 100, 300, 500, 1000	No	2-8
VintagePore MSE	TMS (G1)	5	60, 100, 300, 500, 1000	Yes	2-8



Polymers

Column: 30 cm x 4.6 mm
 Packing: 1 VintagePore SI-100;
 1 VintagePore SI-500;
 1 VintagePore SI-1000
 Mobile phase: THF Flow rate: 1.5 mL/min.
 1. Polystyrene 37,000 MW
 2. Polystyrene 2,700 MW



Serum Proteins

Column: 25 cm x 7.8 mm
 Packing: VintagePore Diol 5 µ, 300 Å
 Mobile phase: 0.1 M Phosphate Buffer + 0.1 M Morpholine, pH = 7
 Flow rate: 1 mL/min.
 Detection: 280 nm Polystyrene 37,000 MW
 1. Human IgM (MW-900,000)
 2. Human IgG (MW-160,000)
 3. Leu-enkephalin (MW-500)



VINTAGE SFC

Vintage SFC Chiral

Chirality is of critical importance in the pharmaceutical, chemical, and agricultural industries, as subtle structural differences between enantiomers can lead to dramatically different biological and pharmacological effects. This has driven a growing demand for stereoselective separation techniques and analytical assays to determine the enantiomeric purity of chiral compounds. Chiral chromatography—especially using HPLC and SFC—as become an essential tool not only for the analytical determination of enantiomeric purity but also for the isolation and purification of individual enantiomers.

Vintage Chrom offers an extensive range of Vintage SFC Chiral stationary phases (CSPs) for both analytical and preparative chromatography. While current chiral stationary phases can resolve a wide variety of chiral mixtures, some enantiomeric mixtures remain challenging to separate, limiting their full characterization. This ongoing challenge fuels our commitment to developing new CSPs with diverse chiral selectivities, ensuring that our Vintage SFC Chiral line continues to advance the science of stereoselective separations and meets the evolving needs of researchers and industry.



Features and Benefits

- Excellent selectivity range to enhance method development
- Superior resolution and efficiency
- High pressure limit for increased flexibility
- Fast optimization for increased throughput
- One column for both SFC and HPLC use

Vintage SFC Chiral column selection process examples based on brand and sample type.

Chiralcel OD	Vintage Chiral O
Chiralcel OZ-H	Vintage Chiral 2
Chiralcel OJ-H	Vintage Chiral J
ChiralPak AS-H	Vintage Chiral S
ChiralPak AY-H	Vintage Chiral 3
Are compounds flourine rich	Vintage Chiral A-FL4 of O-FL4
Can't separate isomers	Vintage Chiral C

Note: CHIRALPAK and CHIRALCEL are registered trademarks of Daicel Corporation

Material Characteristics

Vintage SFC Chiral	Chiral Selector	Amylose/Cellulose Base	Particle Size (µm)	Pore Size (Å)	USP Code
Vintage Chiral 2	Tris(3-chloro-4-methylphenyl)carbamate	Cellulose	3, 5, 10, 20	1000	-
Vintage Chiral 3	Tris(5-chloro-2-methylphenyl)carbamate	Amylose	3, 5, 10, 20	1000	-
Vintage Chiral 4	Tris(4-chloro-3-methylphenyl)carbamate	Cellulose	3, 5, 10, 20	1000	-
Vintage Chiral A	Tris-(3,5-dimethylphenyl)carbamate	Amylose	3, 5, 10, 20	1000	L51
Vintage Chiral A-FL4	Tris(4-Fluoro 3-methylphenyl)carbamate	Amylose	3, 5, 10, 20	1000	-
Vintage Chiral C	3-chloro-4-methylphenylcarbamate and 3,5-dichlorophenylcarbamate	Cellulose	3, 5, 10, 20	1000	-
Vintage Chiral J	Tris(4-methylbenzoate)	Cellulose	3, 5, 10, 20	1000	L80/L107
Vintage Chiral O	Tris-(3,5-dimethylphenyl) carbamate	Cellulose	3, 5, 10, 20	1000	L40/L93
Vintage Chiral O-F2	Tris(2-Fluoro 5-methylphenyl)carbamate	Cellulose	3, 5, 10, 20	1000	-
Vintage Chiral O-F4	Tris(4-Fluoro 3-methylphenyl)carbamate	Cellulose	3, 5, 10, 20	1000	-
Vintage Chiral O-FL4T3	Tris(4-Fluoro-3-(trifluoromethyl)phenyl)carbamate	Cellulose	3, 5, 10, 20	1000	-
Vintage Chiral S	Tris [(S)-α-methylbenzyl]carbamate	Amylose	3, 5, 10, 20	1000	L90
Vintage Chiral U	Methylbenzylcarbamate and 3-chloro-4-methylphenylcarbamate	Amylose	3, 5, 10, 20	1000	-
Vintage Chiral X	Methylbenzylcarbamate and 3,5-dimethylphenylcarbamate	Amylose	3, 5, 10, 20	1000	-

Please enquire for more details at LCSales@vintagechrom.com

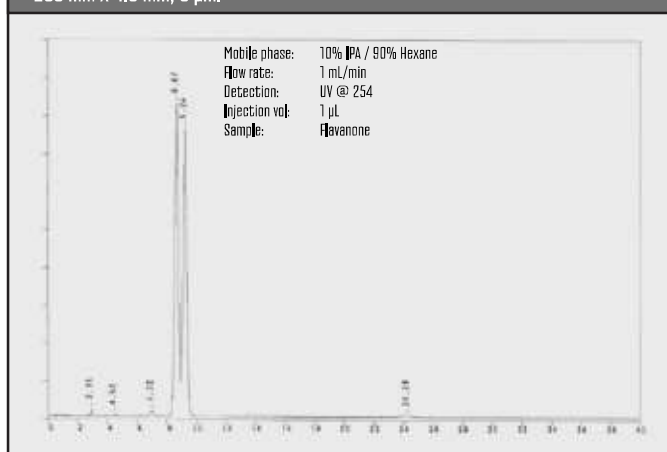
Vintage Chiral 2

A modified cellulose including 3-chloro-4 methylphenylcarbamate bonding groups coated on high purity, high performance spherical silica particles. This combination of bonded groups stabilizes the solubility of coated phase making for a durable phase similar to other widely used coated phases and provides for similar separation behaviour to Phenomenex Lux® Cellulose-2.

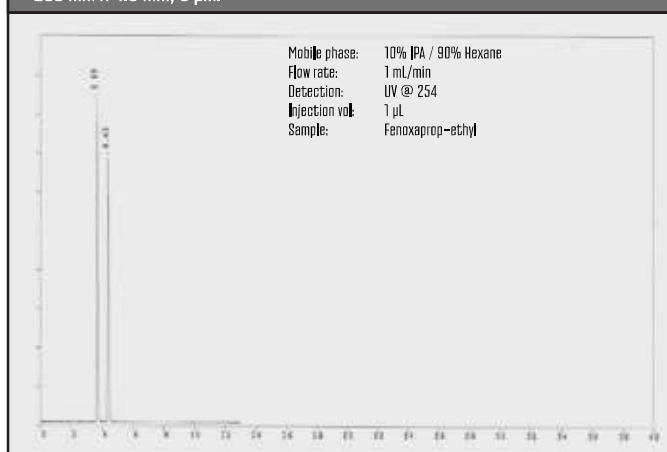
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral 2	100	2.1	3	122151-CH-2
Vintage Chiral 2	100	3.0	3	123151-CH-2
Vintage Chiral 2	100	3.0	5	123251-CH-2
Vintage Chiral 2	100	4.6	3	125151-CH-2
Vintage Chiral 2	100	4.6	5	125251-CH-2
Vintage Chiral 2	150	3.0	3	133151-CH-2
Vintage Chiral 2	150	3.0	5	133251-CH-2
Vintage Chiral 2	150	4.6	3	135151-CH-2
Vintage Chiral 2	150	4.6	5	135251-CH-2
Vintage Chiral 2	250	4.6	5	155251-CH-2
Vintage Chiral 2 Prep	150	20	5	138251-CH-2
Vintage Chiral 2 Prep	150	30	5	13N251-CH-2
Vintage Chiral 2 Prep	150	30	5	158251-CH-2
Vintage Chiral 2 Prep	250	30	5	15N251-CH-2
Vintage Chiral 2 Prep	250	50	5	15F251-CH-2
Vintage Chiral 2 Analytical Guard Cartridges (Pkg. 5)	250	2.0	5	500103-CH-2
Vintage Chiral 2 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-2
Analytical Guard Cartridge Holder with integrated coupler	10	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

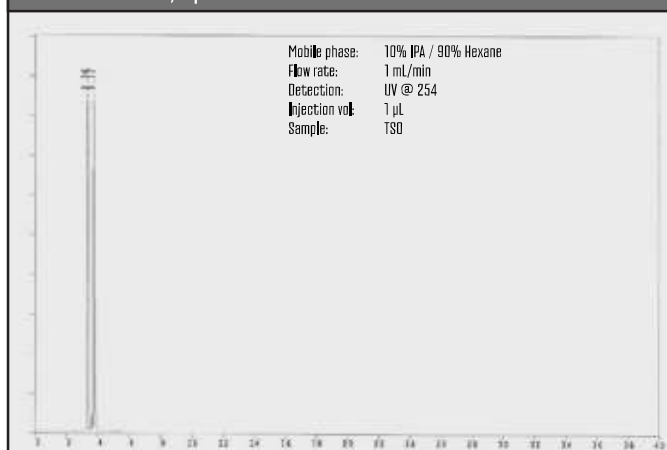
HPLC analysis of flavanone using Vintage Chiral 2, 250 mm x 4.6 mm, 5 µm.



HPLC analysis of fenoxaprop-ethyl using Vintage Chiral 2, 250 mm x 4.6 mm, 5 µm.



HPLC analysis of TSD using Vintage Chiral 2, 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

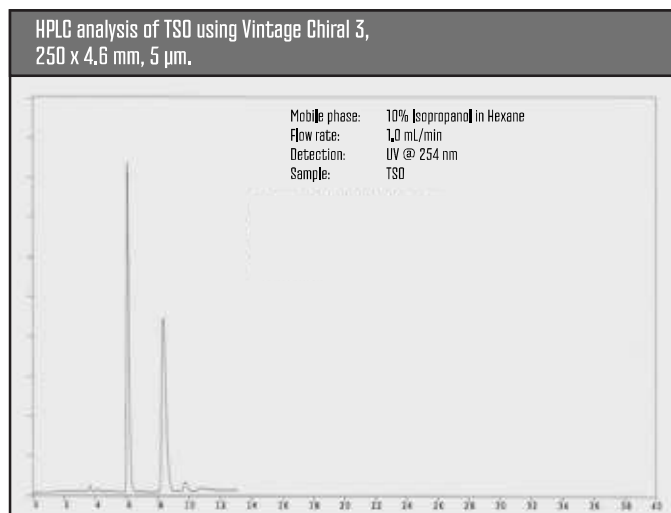
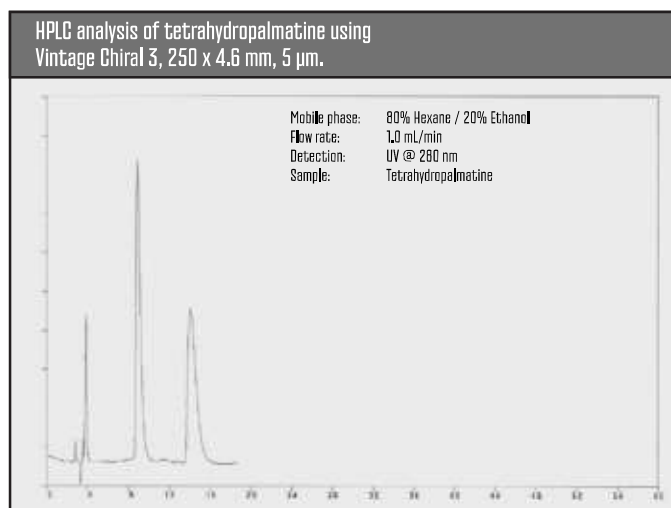
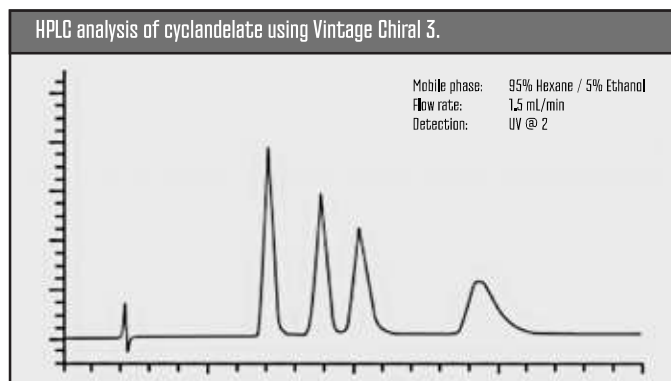
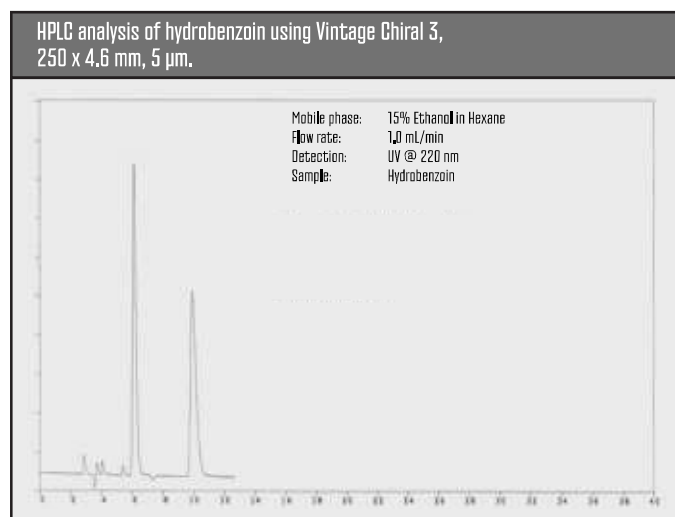
Equivalent

Vintage Chiral 3

Vintage Chiral 3 (amylose tris(5-chloro-2-methylphenyl-carbamate)) is for high resolution chiral separations based on a new halogenated carbohydrate based chiral stationary phase. Similar in selectivity to CHIRALPAK® AY-H. Vintage Chiral 3 can provide superior chiral separations, sample loading and superior peak shape performance.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral 3	100	3.0	3	123151-CH-3
Vintage Chiral 3	100	3.0	5	123251-CH-3
Vintage Chiral 3	100	4.6	3	125151-CH-3
Vintage Chiral 3	100	4.6	5	125251-CH-3
Vintage Chiral 3	150	3.0	3	133151-CH-3
Vintage Chiral 3	150	3.0	5	133251-CH-3
Vintage Chiral 3	150	4.6	3	135151-CH-3
Vintage Chiral 3	150	4.6	5	135251-CH-3
Vintage Chiral 3	250	4.6	10	155351-CH-3
Vintage Chiral 3	250	4.6	5	155251-CH-3
Vintage Chiral 3 Prep	150	20	5	138251-CH-3
Vintage Chiral 3 Prep	150	30	5	13N251-CH-3
Vintage Chiral 3 Prep	250	20	5	158251-CH-3
Vintage Chiral 3 Prep	250	30	5	15N251-CH-3
Vintage Chiral 3 Prep	250	50	5	15F251-CH-3
Vintage Chiral 3 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CH-3
Vintage Chiral 3 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-3
Analytical Guard Cartridge Holder with integrated couple	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SEC

Vintage ARO

Vintage FSep

Equivalent

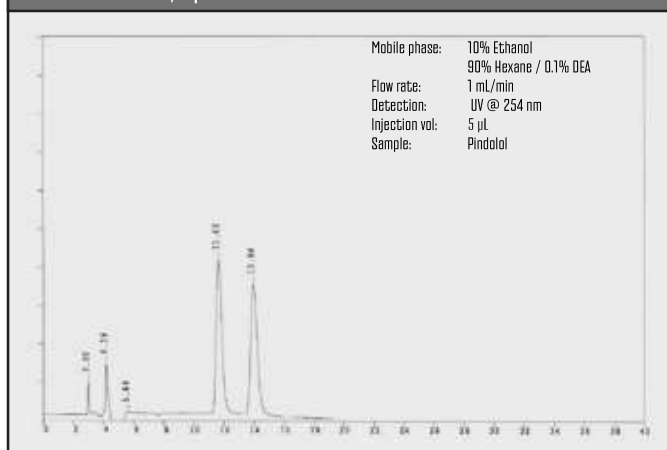
Vintage Chiral 4

Vintage Chiral 4 (cellulose tris (4-chloro-3-methyl-phenyl-carbamate)) is another new product for high resolution chiral separations based on a new halogenated carbohydrate based chiral stationary phase. It is a modified cellulose coated on high purity, high performance spherical silica particles. The chemical modification includes the chemical bonding of 4-chloro-3 methylphenylcarbamate to cellulose. The use of cellulose modified with chlorinated phenyl groups provides a separation opportunity for many previously unresolved and poorly resolved chiral mixtures. Similar in selectivity to CHIRALCEL® OZ-H.

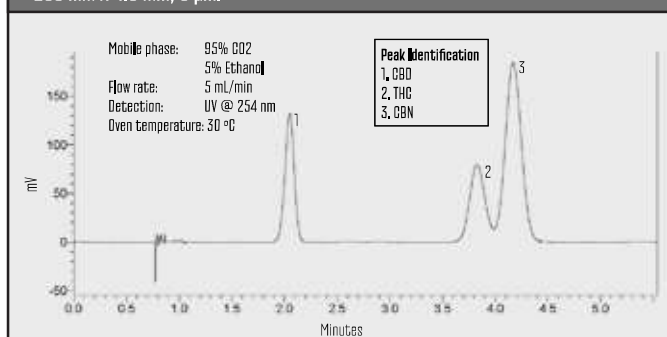
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral 4	50	4.6	3	115151-CH-4
Vintage Chiral 4	50	4.6	5	115251-CH-4
Vintage Chiral 4	100	2.1	3	122151-CH-4
Vintage Chiral 4	100	3.0	3	123151-CH-4
Vintage Chiral 4	100	3.0	5	123251-CH-4
Vintage Chiral 4	100	4.6	3	125151-CH-4
Vintage Chiral 4	100	4.6	5	125251-CH-4
Vintage Chiral 4	150	3.0	3	133151-CH-4
Vintage Chiral 4	150	3.0	5	133251-CH-4
Vintage Chiral 4	150	4.6	3	135151-CH-4
Vintage Chiral 4	150	4.6	5	135251-CH-4
Vintage Chiral 4	250	4.6	10	155351-CH-4
Vintage Chiral 4	250	4.6	5	155251-CH-4
Vintage Chiral 4 Prep	150	20	5	138251-CH-4
Vintage Chiral 4 Prep	150	30	5	13N251-CH-4
Vintage Chiral 4 Prep	250	10	5	157251-CH-4
Vintage Chiral 4 Prep	250	20	5	158251-CH-4
Vintage Chiral 4 Prep	250	30	10	15N351-CH-4
Vintage Chiral 4 Prep	250	30	5	15N251-CH-4
Vintage Chiral 4 Prep	250	50	5	15F251-CH-4
Vintage Chiral 4 Analytical	10	2.0	5	500103-CH-4
Guard Cartridges (Pkg. 5)				
Vintage Chiral 4 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-4
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler				

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

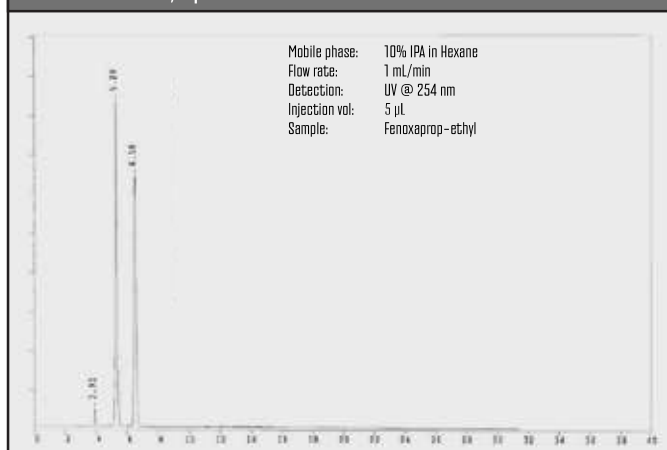
HPLC analysis of pindolol using Vintage Chiral 4, 250 mm x 4.6 mm, 5 µm.



SFC analysis of cannabinoids using Vintage Chiral 4, 250 mm x 4.6 mm, 5 µm.



HPLC analysis of fenoxaprop-ethyl using Vintage Chiral 4, 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

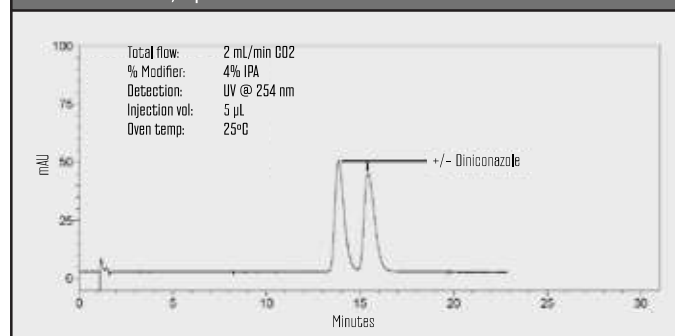
Vintage Chiral A

A polysaccharide coated chiral stationary phase and columns which are produced using a unique production process of coating the proven chiral selector, tris-(3,5-dimethylphenyl-carbamate) amylose on high purity silica gel. Vintage Chiral A columns, similar in selectivity to ChiralPak® AD.

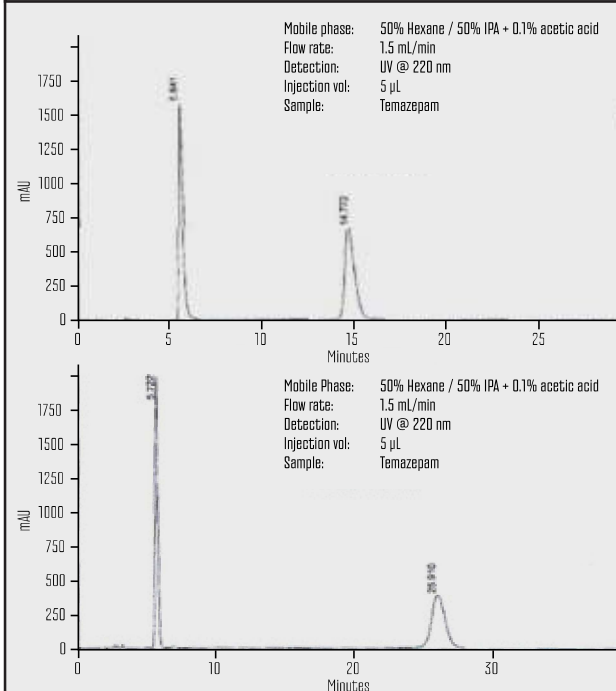
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral A	50	4.6	3	115151-CH-A
Vintage Chiral A	100	3.0	3	123151-CH-A
Vintage Chiral A	100	3.0	5	123251-CH-A
Vintage Chiral A	100	4.6	3	125151-CH-A
Vintage Chiral A	100	4.6	5	125251-CH-A
Vintage Chiral A	150	3.0	3	133151-CH-A
Vintage Chiral A	150	3.0	5	133251-CH-A
Vintage Chiral A	150	4.6	3	135151-CH-A
Vintage Chiral A	150	4.6	5	135251-CH-A
Vintage Chiral A	250	4.6	10	155351-CH-A
Vintage Chiral A	250	4.6	3	155151-CH-A
Vintage Chiral A	250	4.6	5	155251-CH-A
Vintage Chiral A Prep	150	20	5	138251-CH-A
Vintage Chiral A Prep	150	30	5	13N251-CH-A
Vintage Chiral A Prep	250	10	5	157251-CH-A
Vintage Chiral A Prep	250	20	10	158351-CH-A
Vintage Chiral A Prep	250	20	5	158251-CH-A
Vintage Chiral A Prep	250	30	5	15N251-CH-A
Vintage Chiral A Prep	250	50	5	15F251-CH-A
Vintage Chiral A Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CH-A
Vintage Chiral A Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-A
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

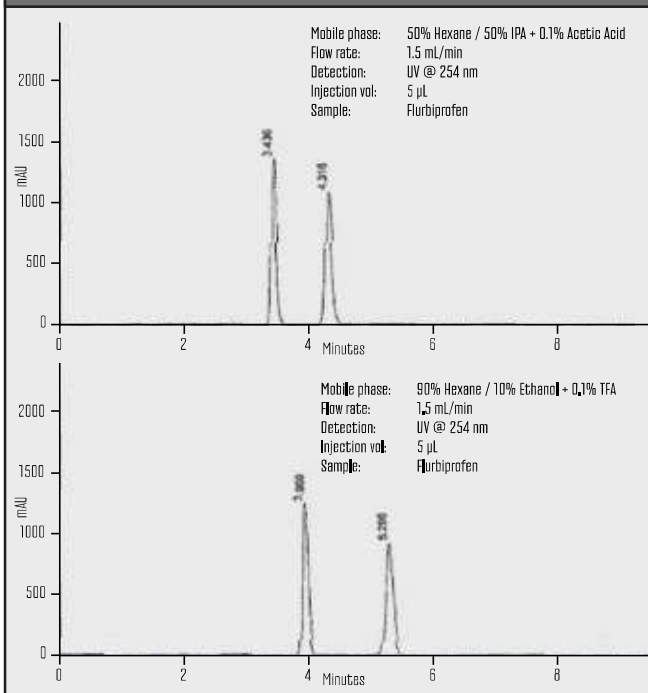
SFC analysis of diniconazole using Vintage Chiral A, 150 mm x 4.6 mm, 5 µm.



HPLC analysis of temazepam using Vintage Chiral A (top) and Daicel® CHIRALPAK® AD-H (bottom), 250 mm x 4.6 mm, 5 µm.



HPLC analysis of flurbiprofen using Vintage Chiral A (top) and Daicel® CHIRALPAK® AD-H (bottom), 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

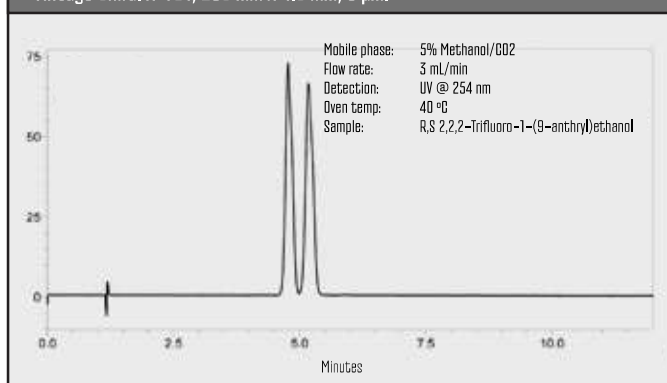
Vintage Chiral A-FL4

Vintage Chiral A-FL4 is a tris (4-Fluoro 3-methylphenyl-carbamate) amylose phase which can be used in SFC or HPLC. Vintage Chiral A-FL4 incorporates a fluorogroup in its structure. The addition of a fluorine atom into a phenyl carbamate amylose structure can be useful in promoting fluorophilic retention mechanism which can provide improved retention for fluorinated compounds. A fluorophilic retention mechanism can be particularly useful in medicinal chemistry and drug discovery, where more than a third of newly approved small molecule drugs contain fluorine.

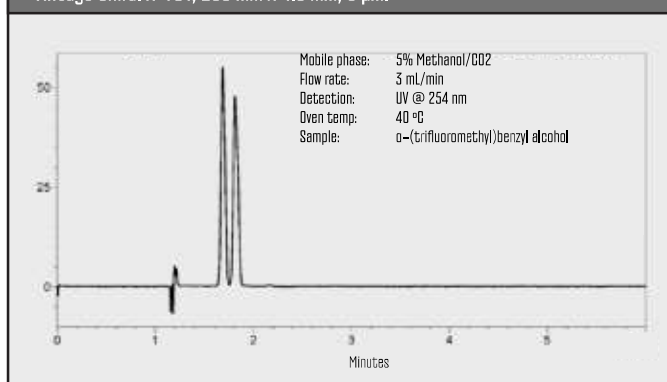
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral A-FL4	100	3.0	3	123151-A-FL4
Vintage Chiral A-FL4	100	3.0	5	123251-A-FL4
Vintage Chiral A-FL4	100	4.6	3	125151-A-FL4
Vintage Chiral A-FL4	100	4.6	5	125251-A-FL4
Vintage Chiral A-FL4	150	3.0	3	133151-A-FL4
Vintage Chiral A-FL4	150	3.0	5	133251-A-FL4
Vintage Chiral A-FL4	150	4.6	3	135151-A-FL4
Vintage Chiral A-FL4	150	4.6	5	135251-A-FL4
Vintage Chiral A-FL4	250	4.6	5	155251-A-FL4
Vintage Chiral A-FL4 Prep	150	20	5	138251-A-FL4
Vintage Chiral A-FL4 Prep	150	30	5	13N251-A-FL4
Vintage Chiral A-FL4 Prep	250	20	5	158251-A-FL4
Vintage Chiral A-FL4 Prep	250	30	5	15N251-A-FL4
Vintage Chiral A-FL4 Prep	250	50	5	15F251-A-FL4
Vintage Chiral A-FL4 Analytical Guard Cartridges (Pkg.5)	10	2.0	5	500103-A-FL4
Vintage Chiral A-FL4 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-A-FL4
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler				

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

SFC analysis of R,S 2,2,2-Trifluoro-1-(9-anthryl) ethanol using Vintage Chiral A-FL4, 250 mm x 4.6 mm, 5 µm.



SFC analysis of α-(trifluoromethyl)benzyl alcohol using Vintage Chiral A-FL4, 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

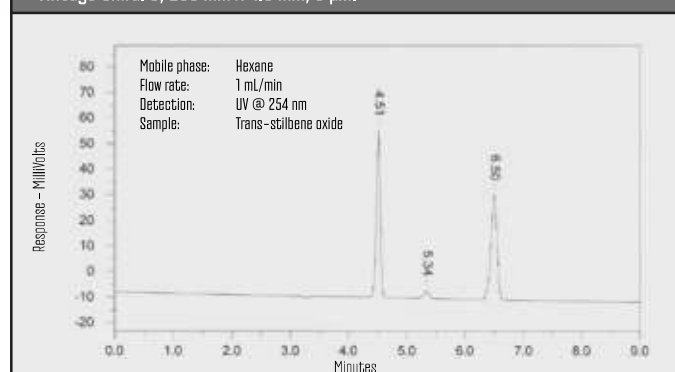
Vintage Chiral C

A modified cellulose including the combination of 3-chloro-4-methylphenylcarbamate and 3,5-dichlorophenylcarbamate bonding groups coated on high purity, high performance spherical silica particles. This combination of bonded groups stabilizes the solubility of coated phase making for a durable phase similar to other widely used coated phases. The use of cellulose modified with chlorinated phenyl groups provides for the separation for many previously unresolved/poorly resolved chiral mixtures by providing unique separation characteristics.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral C	50	4.6	3	115151-CH-C
Vintage Chiral C	50	4.6	5	115251-CH-C
Vintage Chiral C	100	3.0	3	123151-CH-C
Vintage Chiral C	100	3.0	5	123251-CH-C
Vintage Chiral C	100	4.6	3	125151-CH-C
Vintage Chiral C	100	4.6	5	125251-CH-C
Vintage Chiral C	150	3.0	3	133151-CH-C
Vintage Chiral C	150	3.0	5	133251-CH-C
Vintage Chiral C	150	4.6	3	135151-CH-C
Vintage Chiral C	150	4.6	5	135251-CH-C
Vintage Chiral C	250	4.6	3	155151-CH-C
Vintage Chiral C	250	4.6	5	155251-CH-C
Vintage Chiral C Prep	150	20	5	138251-CH-C
Vintage Chiral C Prep	150	30	5	13N251-CH-C
Vintage Chiral C Prep	250	20	5	158251-CH-C
Vintage Chiral C Prep	250	30	5	15N251-CH-C
Vintage Chiral C Prep	250	50	5	15F251-CH-C
Vintage Chiral C Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CH-C
Vintage Chiral C Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-C
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

HPLC analysis of trans-stilbene oxide using Vintage Chiral C, 250 mm x 4.6 mm, 5 µm.



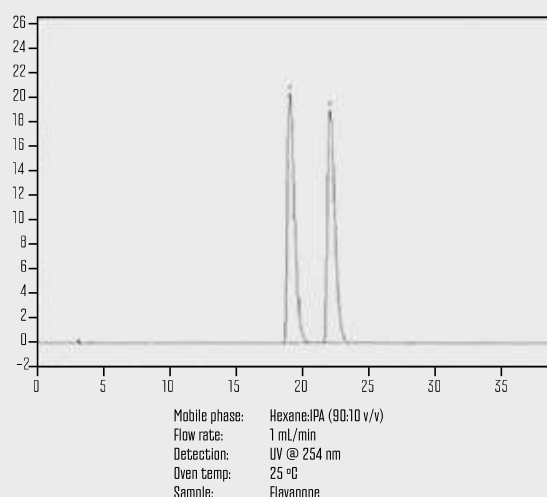
Vintage Chiral J

Vintage Chiral J (cellulose tris(4-methylbenzoate)) is a new product for high resolution chiral separations based on a new carbohydrate based chiral stationary phase. Similar in selectivity to CHIRALCEL® DJ-H.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral J	50	4.6	3	115151-CH-J
Vintage Chiral J	100	3.0	3	123151-CH-J
Vintage Chiral J	100	3.0	5	123251-CH-J
Vintage Chiral J	100	4.6	3	125151-CH-J
Vintage Chiral J	100	4.6	5	125251-CH-J
Vintage Chiral J	150	3.0	3	133151-CH-J
Vintage Chiral J	150	3.0	5	133251-CH-J
Vintage Chiral J	150	4.6	3	135151-CH-J
Vintage Chiral J	150	4.6	5	135251-CH-J
Vintage Chiral J	250	4.6	10	155351-CH-J
Vintage Chiral J	250	4.6	5	155251-CH-J
Vintage Chiral J Prep	150	20	5	138251-CH-J
Vintage Chiral J Prep	150	30	5	13N251-CH-J
Vintage Chiral J Prep	250	20	10	158351-CH-J
Vintage Chiral J Prep	250	20	5	158251-CH-J
Vintage Chiral J Prep	250	30	5	15N251-CH-J
Vintage Chiral J Prep	250	50	5	15F251-CH-J
Vintage Chiral J Ana-lytical Guard Cartridges(Pkg. 5)	10	2.0	5	500103-CH-J
Vintage Chiral J Ana-lytical Guard Cartridges(Pkg. 5)	10	3.0	5	500101-CH-J
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

HPLC analysis of flavanone using Vintage Chiral J, 250 mm x 4.6 mm, 5 µm.



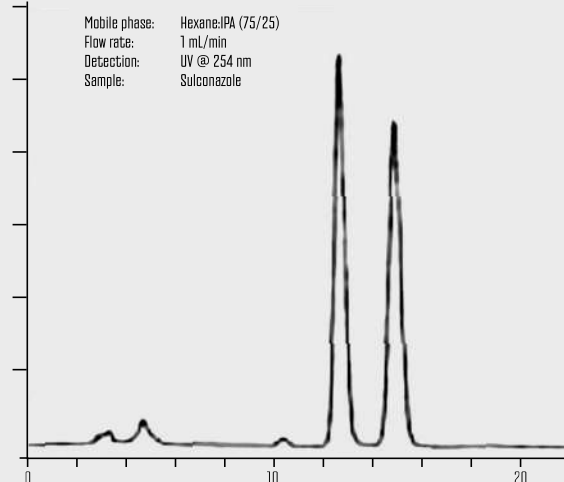
Vintage Chiral O

A polysaccharide coated chiral stationary phase and columns which are produced using a unique production process of coating the proven chiral selector, tris-(3,5-dimethylphenyl-carbamate) cellulose on high purity, high performance silica. Vintage Chiral O columns are similar in selectivity to CHIRALCEL® OD.

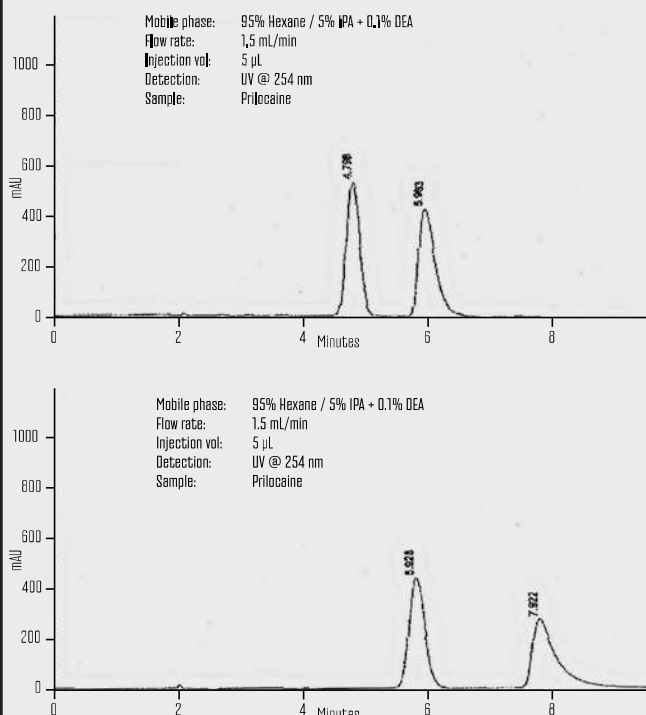
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral O	50	4.6	3	115151-CH-O
Vintage Chiral O	100	3.0	3	123151-CH-O
Vintage Chiral O	100	3.0	5	123251-CH-O
Vintage Chiral O	100	4.6	3	125151-CH-O
Vintage Chiral O	150	3.0	3	133151-CH-O
Vintage Chiral O	150	3.0	5	133251-CH-O
Vintage Chiral O	150	4.6	3	135151-CH-O
Vintage Chiral O	150	4.6	5	135251-CH-O
Vintage Chiral O	250	2.0	10	152351-CH-O
Vintage Chiral O	250	4.6	10	155351-CH-O
Vintage Chiral O	250	4.6	5	155251-CH-O
Vintage Chiral O Prep	150	20	5	138251-CH-O
Vintage Chiral O Prep	150	30	5	13N251-CH-O
Vintage Chiral O Prep	250	20	5	158251-CH-O
Vintage Chiral O Prep	250	30	10	15N351-CH-O
Vintage Chiral O Prep	250	30	5	15N251-CH-O
Vintage Chiral O Prep	250	50	5	15F251-CH-O
Vintage Chiral O Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CH-O
Vintage Chiral O Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-O
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

HPLC analysis of sulconazole using Vintage Chiral O, 250 mm x 4.6 mm, 5 µm.



HPLC analysis of prilocaine using Vintage Chiral O (top) and Daicel CHIRALCEL OD-H (bottom), 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

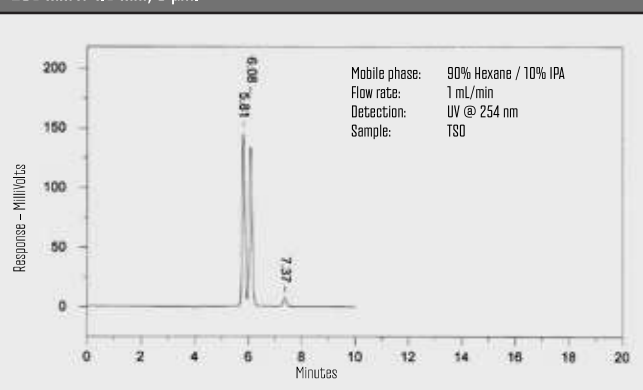
Vintage Chiral O-FL2

Vintage Chiral O-FL2 is a tris(2-Fluoro 5-methylphenylcarbamate) cellulose phase which can be used in SFC or HPLC. The addition of a fluorine atom into a phenyl carbamate cellulose structure can be useful in promoting a fluorophilic retention mechanism which can provide improved retention for fluorinated compounds. A fluorophilic retention mechanism can be particularly useful in medicinal chemistry and drug discovery, where more than a third of newly approved small molecule drugs contain fluorine.

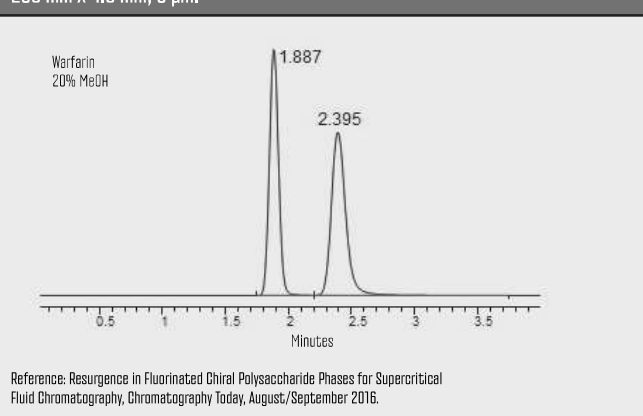
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral O-FL2	50	4.6	3	115151-O-FL2
Vintage Chiral O-FL2	50	4.6	5	115251-O-FL2
Vintage Chiral O-FL2	100	3.0	3	123151-O-FL2
Vintage Chiral O-FL2	100	3.0	5	123251-O-FL2
Vintage Chiral O-FL2	100	4.6	3	125151-O-FL2
Vintage Chiral O-FL2	100	4.6	5	125251-O-FL2
Vintage Chiral O-FL2	150	3.0	3	133151-O-FL2
Vintage Chiral O-FL2	150	3.0	5	133251-O-FL2
Vintage Chiral O-FL2	150	4.6	3	135151-O-FL2
Vintage Chiral O-FL2	150	4.6	5	135251-O-FL2
Vintage Chiral O-FL2	250	4.6	5	155251-O-FL2
Vintage Chiral O-FL2 Prep	150	20	5	138251-O-FL2
Vintage Chiral O-FL2 Prep	150	30	5	13N251-O-FL2
Vintage Chiral O-FL2 Prep	250	20	5	158251-O-FL2
Vintage Chiral O-FL2 Prep	250	30	5	15N251-O-FL2
Vintage Chiral O-FL2 Prep	250	50	5	15F251-O-FL2
Vintage Chiral O-FL2 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-O-FL2
Vintage Chiral O-FL2 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-O-FL2
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

HPLC analysis of TSO using Vintage Chiral O-FL2, 250 mm x 4.6 mm, 5 µm.



SFC analysis of warfarin using Vintage Chiral O-FL2, 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

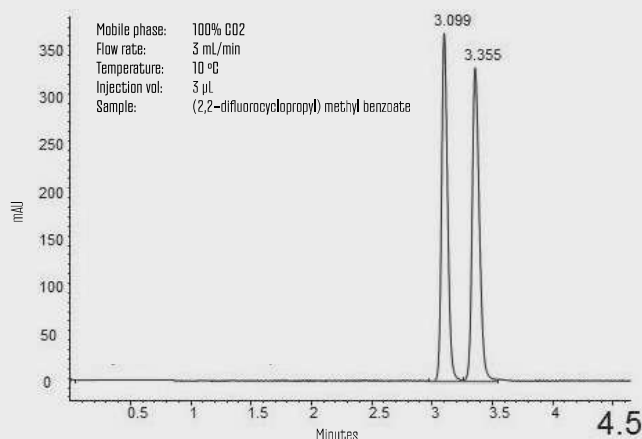
Vintage Chiral O-FL4

Vintage Chiral O-FL4 is a tris(4-Fluoro 3-methylphenylcarbamate) cellulose phase which can be used in SFC or HPLC. The addition of a fluorine atom into a phenyl carbamate cellulose structure is useful in promoting a fluorophilic retention mechanism which provides improved retention for fluorinated compounds. A fluorophilic retention mechanism is particularly useful in medicinal chemistry and drug discovery, where more than a third of newly approved small molecule drugs contain fluorine.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral O-FL4	50	4.6	3	115151-O-FL4
Vintage Chiral O-FL4	100	3.0	3	123151-O-FL4
Vintage Chiral O-FL4	100	3.0	5	123251-O-FL4
Vintage Chiral O-FL4	100	4.6	3	125151-O-FL4
Vintage Chiral O-FL4	100	4.6	5	125251-O-FL4
Vintage Chiral O-FL4	150	3.0	3	133151-O-FL4
Vintage Chiral O-FL4	150	3.0	5	133251-O-FL4
Vintage Chiral O-FL4	150	4.6	3	135151-O-FL4
Vintage Chiral O-FL4	150	4.6	5	135251-O-FL4
Vintage Chiral O-FL4	250	4.6	5	155251-O-FL4
Vintage Chiral O-FL4 Prep	150	20	5	138251-O-FL4
Vintage Chiral O-FL4 Prep	150	30	5	13N251-O-FL4
Vintage Chiral O-FL4 Prep	250	20	5	158251-O-FL4
Vintage Chiral O-FL4 Prep	250	30	5	15N251-O-FL4
Vintage Chiral O-FL4 Prep	250	50	5	15F251-O-FL4
Vintage Chiral O-FL4 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-O-FL4
Vintage Chiral O-FL4 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-O-FL4
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

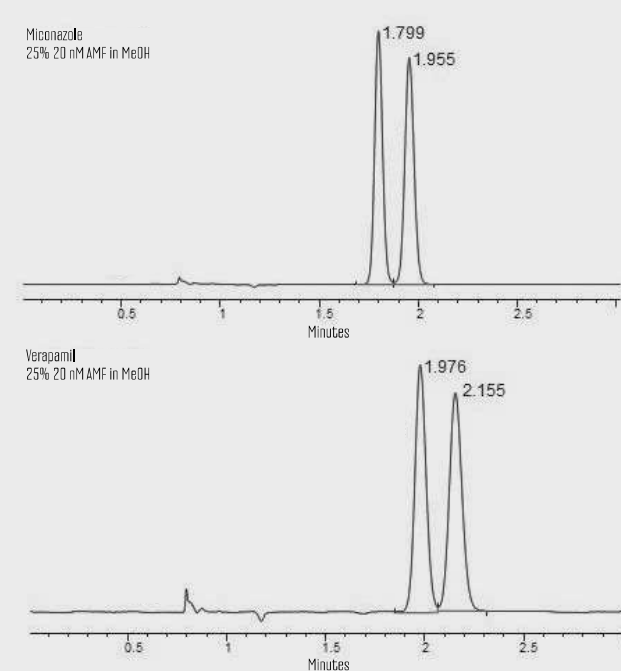
Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at USSales@vintagechrom.com

SFC analysis of (2,2-difluorocyclopropyl) methyl benzoate using Vintage Chiral O-FL4, 250 mm x 4.6 mm, 5 µm.



Reference: Resurgence in Fluorinated Chiral Polysaccharide Phases for Supercritical Fluid Chromatography, *Chromatography Today*, August/September 2016

SFC analysis of miconazole and verapamil using Vintage Chiral O-FL4, 250 mm x 4.6 mm, 5 µm.



Reference: Resurgence in Fluorinated Chiral Polysaccharide Phases for Supercritical Fluid Chromatography, *Chromatography Today*, August/September 2016

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

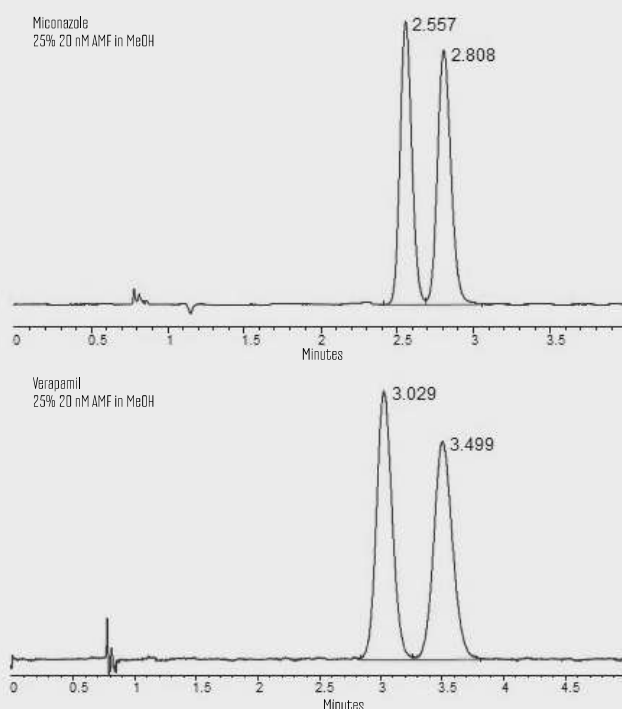
Vintage Chiral O-FL4T3

Vintage Chiral O F4 T3 (tris(4-Fluoro-3-(trifluoromethylphenyl) carbamate) cellulose) incorporates fluoro groups into its structure, and can be used in SFC or HPLC. The addition of a fluorine atom into a phenyl cellulose structure can be useful in promoting fluorophilic retention mechanism which can provide improved retention for fluorinated compounds. A fluorophilic retention mechanism can be particular useful in medicinal chemistry and drug discovery, where more than a third of newly approved small molecule drugs contain fluorine.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral O-FL4T3	100	3.0	3	123151-O-FL4T3
Vintage Chiral O-FL4T3	100	3.0	5	123251-O-FL4T3
Vintage Chiral O-FL4T3	100	4.6	3	125151-O-FL4T3
Vintage Chiral O-FL4T3	150	3.0	3	133151-O-FL4T3
Vintage Chiral O-FL4T3	150	3.0	5	133251-O-FL4T3
Vintage Chiral O-FL4T3	150	4.6	3	135151-O-FL4T3
Vintage Chiral O-FL4T3	150	4.6	5	135251-O-FL4T3
Vintage Chiral O-FL4T3	250	4.6	5	155251-O-FL4T3
Vintage Chiral O-FL4T3 Prep	150	20	5	138251-O-FL4T3
Vintage Chiral O-FL4T3 Prep	150	30	5	13N251-O-FL4T3
Vintage Chiral O-FL4T3 Prep	250	20	5	158251-O-FL4T3
Vintage Chiral O-FL4T3 Prep	250	30	5	15N251-O-FL4T3
Vintage Chiral O-FL4T3 Prep	250	50	5	15F251-O-FL4T3
Vintage Chiral O-FL4T3 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-O-FL4T3
Vintage Chiral O-FL4T3 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-O-FL4T3
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

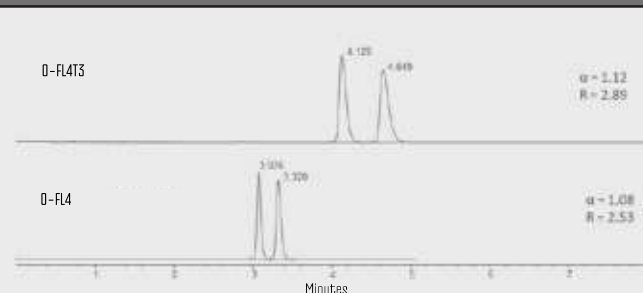
Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

SFC analysis of miconazole and verapamil using Vintage Chiral O-FL4T3, 250 mm x 4.6 mm, 5 µm.



Reference: Resurgence in Fluorinated Chiral Polysaccharide Phases for Supercritical Fluid Chromatography, *Chromatography Today*, August/September 2016

SFC analysis of (2,2-difluorocyclopropyl) methyl benzoate using Vintage Chiral O-FL4T3 (top) and O-FL4 (bottom), 250 mm x 4.6 mm, 5 µm.



Reference: Resurgence in Fluorinated Chiral Polysaccharide Phases for Supercritical Fluid Chromatography, *Chromatography Today*, August/September 2016

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

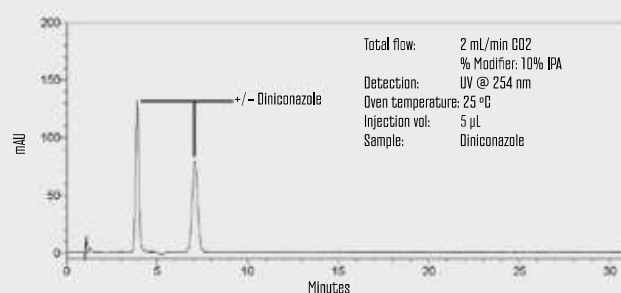
Vintage Chiral S

Vintage Chiral S (amylose tris [(S)- α -methylbenzyl-carbamate]) permits the enantiomeric separation of 1-Indanol without the addition of DEA (Diethyl amine). Historically DEA has been commonly used to improve peak shape for chiral separations of compounds such as 1-Indanol. Vintage Chiral S separates the 1-Indanol enantiomers with sharp peaks without DEA, providing superior chiral separations, sample loading and peak shape performance. Similar in selectivity to CHIRALPAK® AS-H.

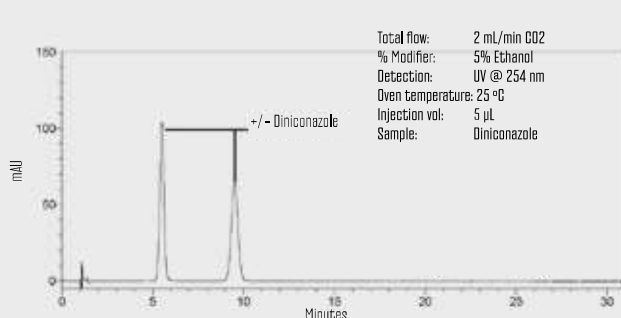
Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Part No.
Vintage Chiral S	50	4.6	3	115151-CH-S
Vintage Chiral S	50	4.6	5	115251-CH-S
Vintage Chiral S	100	3.0	3	123151-CH-S
Vintage Chiral S	100	3.0	5	123251-CH-S
Vintage Chiral S	100	4.6	3	125151-CH-S
Vintage Chiral S	100	4.6	5	125251-CH-S
Vintage Chiral S	150	3.0	3	133151-CH-S
Vintage Chiral S	150	3.0	5	133251-CH-S
Vintage Chiral S	150	4.6	3	135151-CH-S
Vintage Chiral S	150	4.6	5	135251-CH-S
Vintage Chiral S	250	4.6	5	155251-CH-S
Vintage Chiral S Prep	150	20	5	138251-CH-S
Vintage Chiral S Prep	150	30	5	13N251-CH-S
Vintage Chiral S Prep	250	20	5	158251-CH-S
Vintage Chiral S Prep	250	30	5	15N251-CH-S
Vintage Chiral S Prep	250	50	5	15F251-CH-S
Vintage Chiral S Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CH-S
Vintage Chiral S Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-S
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available.
Please enquire for more details at: USSales@vintagechrom.com

SFC analysis of diniconazole using Vintage Chiral S with 10% IPA, 150 mm x 4.6 mm, 5 μ m.



SFC analysis of diniconazole using Vintage Chiral S with 5% ethanol, 150 mm x 4.6 mm, 5 μ m.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

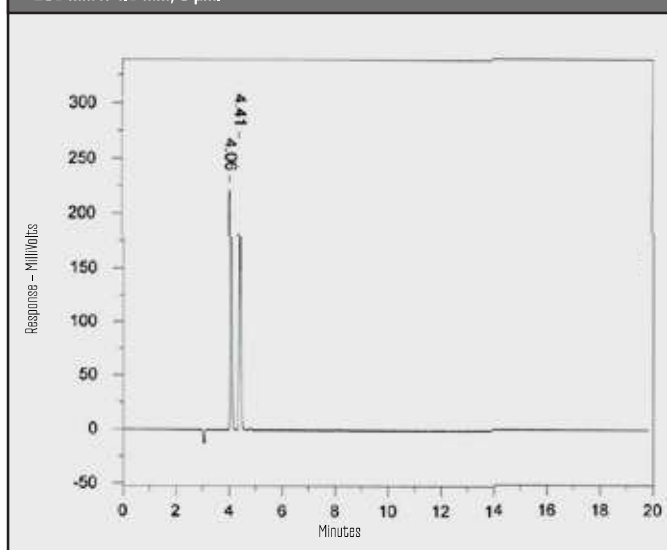
Vintage Chiral U

Vintage Chiral U is a modified amylose coated on high purity, high performance spherical silica particles. The chemical modification includes the combination of chemical bonding groups of methylbenzylcarbamate and 3-chloro-4 methylphenylcarbamate attached to amylose. This combination of bonded groups stabilizes the solubility of coated phase making for a durable phase similar to other widely used coated phases. The use of amylose modified with phenyl groups provides for the separation for many previously unresolved/poorly resolved chiral mixtures.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral U	100	3.0	3	123151-CH-U
Vintage Chiral U	100	3.0	5	123251-CH-U
Vintage Chiral U	100	4.6	3	125151-CH-U
Vintage Chiral U	150	3.0	3	133151-CH-U
Vintage Chiral U	150	3.0	5	133251-CH-U
Vintage Chiral U	150	4.6	3	135151-CH-U
Vintage Chiral U	150	4.6	5	135251-CH-U
Vintage Chiral U	250	4.6	5	155251-CH-U
Vintage Chiral U	50	4.6	3	115151-CH-U
Vintage Chiral U Prep	150	20	5	138251-CH-U
Vintage Chiral U Prep	150	30	5	13N251-CH-U
Vintage Chiral U Prep	250	20	5	158251-CH-U
Vintage Chiral U Prep	250	30	5	15N251-CH-U
Vintage Chiral U Prep	250	50	5	15F251-CH-U
Vintage Chiral U Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CH-U
Vintage Chiral U Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-U
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

SFC analysis of benoxacor (herbicide) using Vintage Chiral U, 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

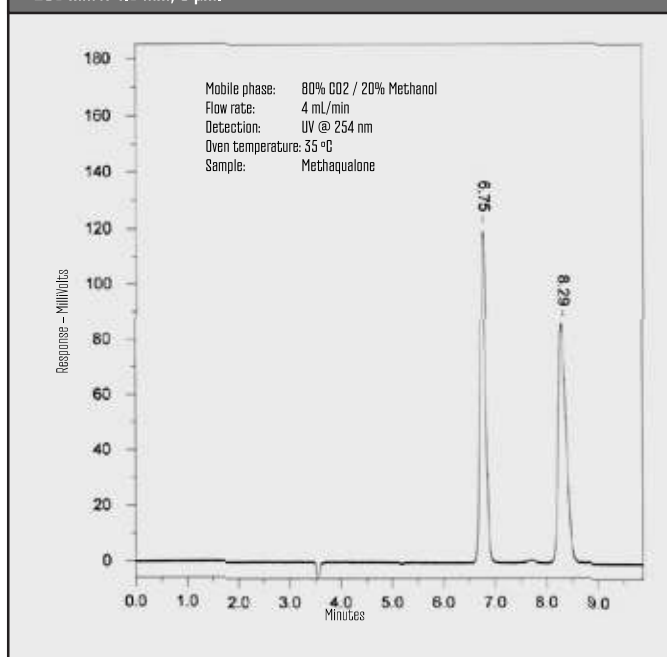
Vintage Chiral X

Vintage Chiral X is a modified amylose coated on high purity, high performance spherical silica particles. The chemical modification includes the combination of chemical bonding groups of methylbenzylcarbamate and 3,5-dimethylphenylcarbamate attached to amylose. This combination of bonded groups stabilizes the solubility of coated phase, making for a durable phase similar to other widely used coated phases. The use of amylose modified with phenyl groups moiety provides for the separation for many previously unresolved/poorly resolved chiral mixtures. This chemical modification provides for unique separation behaviour.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Chiral X	50	4.6	3	115151-CH-X
Vintage Chiral X	100	3.0	3	123151-CH-X
Vintage Chiral X	100	3.0	5	123251-CH-X
Vintage Chiral X	100	4.6	3	125151-CH-X
Vintage Chiral X	150	3.0	3	133151-CH-X
Vintage Chiral X	150	3.0	5	133251-CH-X
Vintage Chiral X	150	4.6	3	135151-CH-X
Vintage Chiral X	150	4.6	5	135251-CH-X
Vintage Chiral X	250	4.6	5	155251-CH-X
Vintage Chiral X Prep	150	20	5	138251-CH-X
Vintage Chiral X Prep	150	30	5	13N251-CH-X
Vintage Chiral X Prep	250	20	5	158251-CH-X
Vintage Chiral X Prep	250	30	5	15N251-CH-X
Vintage Chiral X Prep	250	50	5	15F251-CH-X
Vintage Chiral X Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-CH-X
Vintage Chiral X Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-CH-X
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LCSales@vintagechrom.com

SFC analysis of methaqualone using Vintage Chiral X, 250 mm x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage SFC Achiral

Many traditional SFC separations have relied on older normal-phase HPLC stationary phases such as unmodified silica, diol, amino, and cyano. However, these phases are not optimized for SFC and often present limitations including low capacity, poor selectivity, and suboptimal peak shape. Vintage SFC Achiral stationary phases have been specifically engineered for SFC applications, with careful attention to bonding coverage, density, and all factors that contribute to high-capacity phases exhibiting excellent selectivity and superior peak shape.

Unlike conventional phases, many Vintage SFC Achiral columns designed for basic and acidic compounds do not require mobile phase additives that are commonly necessary with other brands, simplifying method development and reducing complexity. The Vintage SFC Achiral range features a variety of selectivities, offering orthogonality and flexibility for challenging separations. All materials are available in analytical, semipreparative (10 mm), and preparative (20 mm, 30 mm, and 50 mm i.d.) dimensions, ensuring scalability for diverse workflows. Comprehensive technical and method development support is available, with the Vintage SFC Pyridyl Amide column serving as the go-to choice for most SFC separations, supported by a full suite of complementary phases to address specific analytical needs.

Features and Benefits

- Specifically designed for high performance SFC separations resulting in superior separation, selectivity, peak shape, and loading capacity compared to conventional normal-phase HPLC materials adapted for SFC
- Highly efficient columns with superior reproducibility produced from our rigorous bonding procedures
- Directly scalable from analytical to preparative on the same media to streamline purification and maximise operational efficiency
- Many phases have been specifically engineered using functional group chemistry that don't require mobile phase additives such as triethyl amine



Material Characteristics

Vintage SFC	Phase	Particle Size (µm)	Pore Size (Å)	pH Range
Vintage SFC	Pyridyl Amide	1.8, 3, 5, 10	120	2-10
Vintage SFC	Basic	1.8, 3, 5, 10	120	2-10
Vintage SFC	Ethyl Pyridine (PYE)	1.8, 3, 5, 10	120	2-10
Vintage SFC	Ethyl Pyridine II (PYE-II)	1.8, 3, 5, 10	120	2-10
Vintage SFC	Nitro	1.8, 3, 5, 10	120	2-10
Vintage SFC	Naphthyl	1.8, 3, 5, 10	120	2-10
Vintage SFC	Diol	1.8, 3, 5, 10	120	2-10
Vintage SFC	FluoroBasic	1.8, 3, 5, 10	120	2-10
Vintage SFC	4-Ethyl Pyridine (PYE4)	1.8, 3, 5, 10	120	2-10
Vintage SFC	4-Ethyl Pyridine II (PYE4-II)	1.8, 3, 5, 10	120	2-10
Vintage SFC	NP-9	5, 10	-	2-10
Vintage SFC	NP-10	5, 10	-	2-10
Vintage SFC	PFP	1.8, 3, 5, 10	120	2-10
Vintage SFC	Cyano	1.8, 3, 5, 10	120	2-10
Vintage SFC	DEAP	1.8, 3, 5, 10	120	2-10
Vintage SFC	Amine	1.8, 3, 5, 10	120	2-10
Vintage SFC	Silica	1.8, 3, 5, 10	120	2-10

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Column selection guide for the development of an SFC Separation. Vintage SFC Pyridyl Amide is the go-to column of choice, followed by the other columns.

Vintage SFC Pyridyl Amide Good overall selectivity and excellent for acid mixtures without additives	Vintage SFC Basic Imidazole based, best peak shape for amines without additives	Vintage SFC Ethyl Pyridine II Good overall selectivity and excellent for acid mixtures without additives	Vintage SFC Nitro Nitro aromatic based, unique selectivity	Vintage SFC Naphthyl Naphthalene based, ridged structure, good for diastereomers separation and non-polar compounds, n-n interaction	Vintage SFC Diol The selectivity of silica without reactivity of silica
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Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

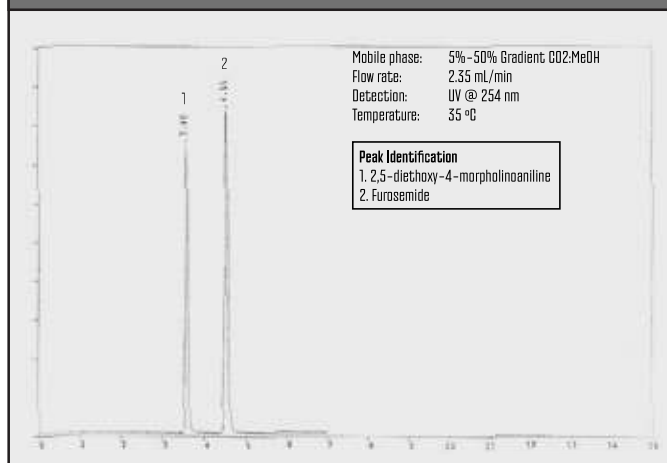
Vintage SFC Pyridyl Amide

Vintage SFC Pyridyl Amide stationary phase is the first column of choice when developing an SFC separation and is excellent overall for the separation of acids, amines and neutrals without additives. The type of chemicals separated on conventional stationary phases (silica, cyano, diol) would normally require the addition of TFA or an amine to the mobile phase as a peak shape modifier. However, Vintage SFC Pyridyl Amide does not require this addition. It is ideal for chemicals that contain both basic amine and acidic groups. Vintage SFC Pyridyl Amide provides flexibility for the SFC chromatographer with mobile phase composition and fraction collection being greatly simplified without the use of amino additives.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Pyridyl Amide	50	2.1	1.8	512A91-SFC-PYA
Vintage SFC Pyridyl Amide	50	3.0	1.8	513A91-SFC-PYA
Vintage SFC Pyridyl Amide	50	3.0	3	113191-SFC-PYA
Vintage SFC Pyridyl Amide	50	4.6	3	115191-SFC-PYA
Vintage SFC Pyridyl Amide	100	2.1	1.8	522A91-SFC-PYA
Vintage SFC Pyridyl Amide	100	2.1	3	122191-SFC-PYA
Vintage SFC Pyridyl Amide	100	3.0	1.8	523A91-SFC-PYA
Vintage SFC Pyridyl Amide	100	3.0	3	123191-SFC-PYA
Vintage SFC Pyridyl Amide	100	3.0	5	123291-SFC-PYA
Vintage SFC Pyridyl Amide	100	4.6	5	125291-SFC-PYA
Vintage SFC Pyridyl Amide	150	2.1	1.8	532A91-SFC-PYA
Vintage SFC Pyridyl Amide	150	3.0	1.8	533A91-SFC-PYA
Vintage SFC Pyridyl Amide	150	3.0	3	133191-SFC-PYA
Vintage SFC Pyridyl Amide	150	3.0	5	133291-SFC-PYA
Vintage SFC Pyridyl Amide	150	4.6	3	135191-SFC-PYA
Vintage SFC Pyridyl Amide	150	4.6	5	135291-SFC-PYA
Vintage SFC Pyridyl Amide Prep	150	20	5	138291-SFC-PYA
Vintage SFC Pyridyl Amide Prep	150	30	5	13N291-SFC-PYA
Vintage SFC Pyridyl Amide Prep	150	50	5	13F291-SFC-PYA
Vintage SFC Pyridyl Amide Prep	250	10	5	157291-SFC-PYA
Vintage SFC Pyridyl Amide Prep	250	20	10	158391-SFC-PYA
Vintage SFC Pyridyl Amide Prep	250	20	5	158291-SFC-PYA
Vintage SFC Pyridyl Amide Prep	250	30	5	15N291-SFC-PYA
Vintage SFC Pyridyl Amide Prep	250	50	5	15F291-SFC-PYA
Vintage SFC Pyridyl Amide Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-PYA
Vintage SFC Pyridyl Amide Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-PYA
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available.
Please enquire for more details at: LCSales@vintagechrom.com

SFC analysis, without mobile phase additives, of compounds containing amine bases and acidic groups using Vintage SFC Pyridyl Amide, 150 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Vintage SFC Basic

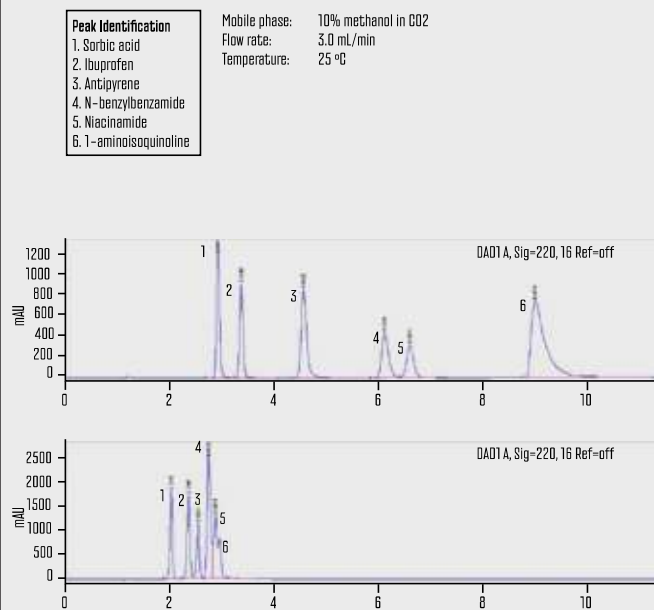
Vintage SFC Basic is based on imidazole chemistry providing a highly basic character for this stationary phase. Vintage SFC Basic offers the chromatographer greater flexibility in developing separations and is the SFC column ideally suited for the retention and rapid separation of chemicals containing amine groups.

Vintage SFC Basic is the primary column of choice for the retention and rapid separation of compounds containing strong amine groups, without use of additives. Vintage SFC Basic can easily replace conventional stationary phases used in SFC and deliver superior performance.

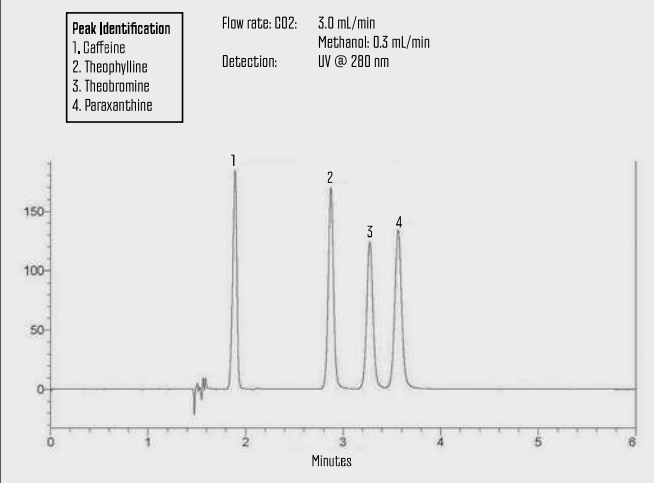
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Basic	50	2.1	1.8	512A91-SFC-BC
Vintage SFC Basic	50	3.0	1.8	513A91-SFC-BC
Vintage SFC Basic	50	3.0	3	113191-SFC-BC
Vintage SFC Basic	50	4.6	3	115191-SFC-BC
Vintage SFC Basic	150	3.0	5	133291-SFC-BC
Vintage SFC Basic	150	4.6	3	135191-SFC-BC
Vintage SFC Basic	100	2.1	3	122191-SFC-BC
Vintage SFC Basic	100	3.0	1.8	523A91-SFC-BC
Vintage SFC Basic	100	3.0	3	123191-SFC-BC
Vintage SFC Basic	100	3.0	5	123291-SFC-BC
Vintage SFC Basic	100	4.6	3	125191-SFC-BC
Vintage SFC Basic	100	4.6	5	125291-SFC-BC
Vintage SFC Basic	150	2.1	3	132191-SFC-BC
Vintage SFC Basic	150	2.1	5	132291-SFC-BC
Vintage SFC Basic	150	3.0	1.8	533A91-SFC-BC
Vintage SFC Basic	150	3.0	3	133191-SFC-BC
Vintage SFC Basic	150	4.6	5	135291-SFC-BC
Vintage SFC Basic	250	4.6	10	155391-SFC-BC
Vintage SFC Basic	250	4.6	5	155291-SFC-BC
Vintage SFC Basic Prep	50	50	5	11F291-SFC-BC
Vintage SFC Basic Prep	100	20	5	128291-SFC-BC
Vintage SFC Basic Prep	100	30	3	12N191-SFC-BC
Vintage SFC Basic Prep	100	50	5	12F291-SFC-BC
Vintage SFC Basic Prep	150	20	5	138291-SFC-BC
Vintage SFC Basic Prep	150	30	5	13N291-SFC-BC
Vintage SFC Basic Prep	150	50	5	13F291-SFC-BC
Vintage SFC Basic Prep	250	20	5	158291-SFC-BC
Vintage SFC Basic Prep	250	30	10	15N391-SFC-BC
Vintage SFC Basic Prep	250	30	5	15N291-SFC-BC
Vintage SFC Basic Prep	250	50	5	15F291-SFC-BC
Vintage SFC Basic Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-BC
Vintage SFC Basic Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-BC
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at: LSales@vintagechrom.com

SFC analysis of amines using Vintage SFC Basic (top) and Vintage SFC Ethyl Pyridine (bottom), 250 x 4.6 mm, 5 µm.



SFC analysis of caffeine analogue mixture using Vintage SFC Basic, 250 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Vintage SFC Ethyl Pyridine

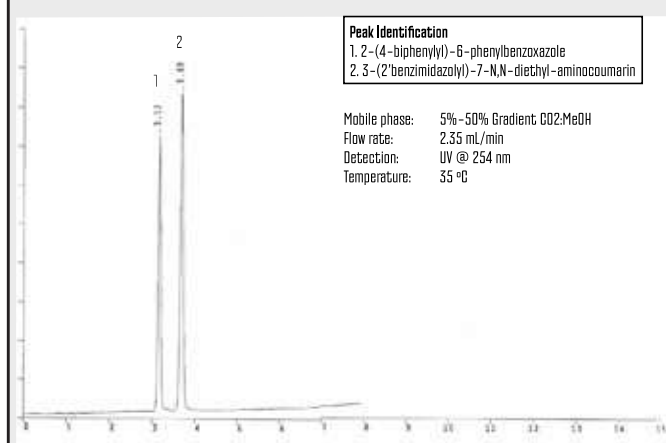
Vintage SFC Ethyl Pyridine is an endcapped phase and has proven superior to conventional stationary phases (such as diol, cyano etc...) in the areas of separation selectivity, peak shape and loading capacity.

The chromatogram shown (right) is a prime example of the superior peak shape performance obtainable with the Vintage SFC Ethyl Pyridine column with SFC. The type of chemicals separated in this chromatogram (functionalized with amine groups) would normally require the addition of an amine to the mobile phase. However, Ethyl Pyridine does not require the addition of these peak shape modifiers. Mobile phase composition and fraction collection is greatly simplified without the use of amino additives. Vintage SFC Ethyl Pyridine provides better separation for amines in comparison with the Vintage SFC Ethyl Pyridine II.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Ethyl Pyridine	50	2.1	1.8	512A91-SFC-PYE
Vintage SFC Ethyl Pyridine	50	3.0	1.8	513A91-SFC-PYE
Vintage SFC Ethyl Pyridine	50	3.0	3	113191-SFC-PYE
Vintage SFC Ethyl Pyridine	50	3.0	5	113291-SFC-PYE
Vintage SFC Ethyl Pyridine	50	4.6	5	115291-SFC-PYE
Vintage SFC Ethyl Pyridine	150	3.0	5	133291-SFC-PYE
Vintage SFC Ethyl Pyridine	150	4.6	3	135191-SFC-PYE
Vintage SFC Ethyl Pyridine	100	2.1	1.8	522A91-SFC-PYE
Vintage SFC Ethyl Pyridine	100	3.0	1.8	523A91-SFC-PYE
Vintage SFC Ethyl Pyridine	100	3.0	3	123191-SFC-PYE
Vintage SFC Ethyl Pyridine	100	3.0	5	123291-SFC-PYE
Vintage SFC Ethyl Pyridine	100	4.6	3	125191-SFC-PYE
Vintage SFC Ethyl Pyridine	100	4.6	5	125291-SFC-PYE
Vintage SFC Ethyl Pyridine	150	2.1	3	132191-SFC-PYE
Vintage SFC Ethyl Pyridine	150	3.0	1.8	533A91-SFC-PYE
Vintage SFC Ethyl Pyridine	150	3	3	133191-SFC-PYE
Vintage SFC Ethyl Pyridine	150	4.6	5	135291-SFC-PYE
Vintage SFC Ethyl Pyridine	250	4.6	5	155291-SFC-PYE

Other column dimensions and guard cartridges are available.
Please enquire for more details at: LSales@VintageChrom.com

SFC analysis of amine containing compounds using
Vintage SFC Ethyl Pyridine, 250 x 4.6 mm, 5 µm.



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Ethyl Pyridine Prep	50	10	3	117191-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	100	30	5	12N291-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	150	20	5	138291-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	150	30	10	13N391-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	150	30	5	13N291-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	250	10	3	157191-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	250	10	5	157291-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	250	20	5	158291-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	250	30	5	15N291-SFC-PYE
Vintage SFC Ethyl Pyridine Prep	250	50	5	15F291-SFC-PYE
Vintage SFC Ethyl Pyridine Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-PYE
Vintage SFC Ethyl Pyridine Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-PYE
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: LSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

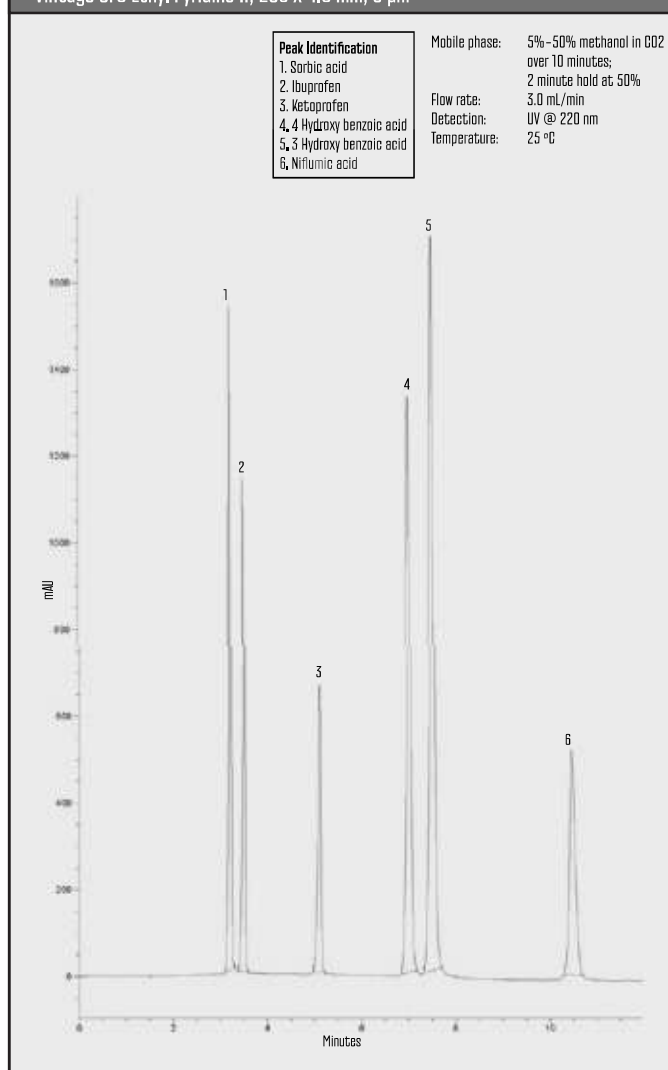
Vintage SFC Ethyl Pyridine II

Vintage SFC Ethyl Pyridine II is based on ethyl pyridine chemistry, providing a unique character for this stationary phase. Vintage SFC Ethyl Pyridine II is ideally suited for the retention and rapid separation of chemicals containing acid groups without additives. This phase is non-encapped and provides superior separation of acids in comparison with the Vintage SFC Ethyl Pyridine. Vintage SFC Ethyl Pyridine II can easily replace conventional stationary phases used in SFC and deliver excellent performance.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Ethyl Pyridine II	150	3.0	3	133191-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	150	3.0	5	133291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	150	4.6	3	135191-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	100	3.0	1.8	523A91-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	100	3.0	3	123191-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	100	3.0	5	123291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	100	4.6	3	125191-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	100	4.6	5	125291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	150	2.1	3	132191-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	150	4.6	5	135291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	250	4.6	5	155291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	50	50	5	11F291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II	100	50	5	12F291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Prep	150	10	5	137291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Prep	150	20	5	138291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Prep	150	30	5	13N291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Prep	250	20	10	158391-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Prep	250	20	5	158291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Prep	250	30	5	15N291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Prep	250	50	5	15F291-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-PYE-II
Vintage SFC Ethyl Pyridine II Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-PYE-II
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LSales@vintagechrom.com

SFC analysis of acidic pharmaceutical compounds using Vintage SFC Ethyl Pyridine II, 250 x 4.6 mm, 5 µm



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

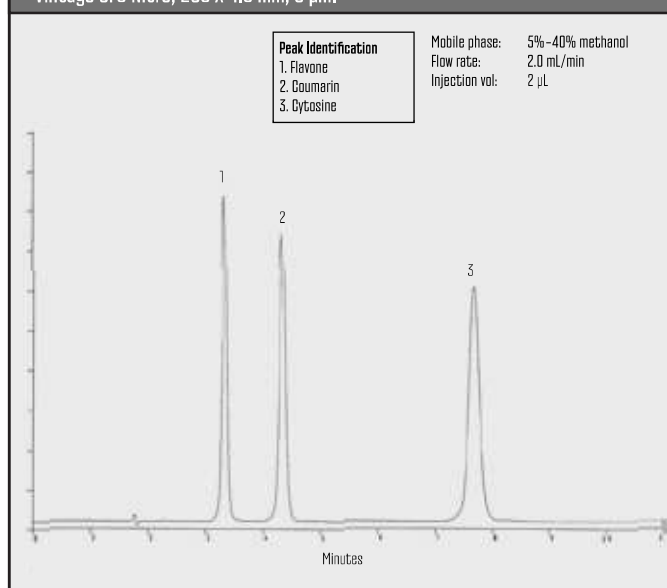
Vintage SFC Nitro

Vintage SFC Nitro SFC stationary phase is nitro aromatic based and has proven superior to conventional stationary phases (such as diol, cyano etc...) in the areas of separation selectivity and loading capacity. Vintage SFC Nitro provides unique selectivity and is specifically designed for the separation of geometrical isomers as well as diastereomers. It is the column of choice in separating compounds that contain an aromatic group, polarizable electrons, halogenated groups and conjugate systems.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Nitro	50	3.0	1.8	513A91-SFC-NO
Vintage SFC Nitro	50	3.0	3	113191-SFC-NO
Vintage SFC Nitro	50	3.0	5	113291-SFC-NO
Vintage SFC Nitro	50	4.6	3	115191-SFC-NO
Vintage SFC Nitro	50	4.6	5	115291-SFC-NO
Vintage SFC Nitro	100	2.1	1.8	522A91-SFC-NO
Vintage SFC Nitro	100	2.1	3	122191-SFC-NO
Vintage SFC Nitro	100	3.0	1.8	523A91-SFC-NO
Vintage SFC Nitro	100	3.0	3	123191-SFC-NO
Vintage SFC Nitro	100	3.0	5	123291-SFC-NO
Vintage SFC Nitro	100	4.6	3	125191-SFC-NO
Vintage SFC Nitro	100	4.6	5	125291-SFC-NO
Vintage SFC Nitro	150	2.1	3	132191-SFC-NO
Vintage SFC Nitro	150	3.0	3	133191-SFC-NO
Vintage SFC Nitro	150	3.0	5	133291-SFC-NO
Vintage SFC Nitro	150	4.6	3	135191-SFC-NO
Vintage SFC Nitro Prep	100	20	5	128291-SFC-NO
Vintage SFC Nitro Prep	100	30	5	12N291-SFC-NO
Vintage SFC Nitro Prep	150	10	5	137291-SFC-NO
Vintage SFC Nitro Prep	150	20	5	138291-SFC-NO
Vintage SFC Nitro Prep	150	30	5	13N291-SFC-NO
Vintage SFC Nitro Prep	250	20	5	158291-SFC-NO
Vintage SFC Nitro Prep	250	30	5	15N291-SFC-NO
Vintage SFC Nitro Prep	250	50	5	15F291-SFC-NO
Vintage SFC Nitro Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-NO
Vintage SFC Nitro Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-NO
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available.
Please enquire for more details at LSales@vintagechrom.com

SFC analysis of flavone, coumarin and cytosine using Vintage SFC Nitro, 250 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

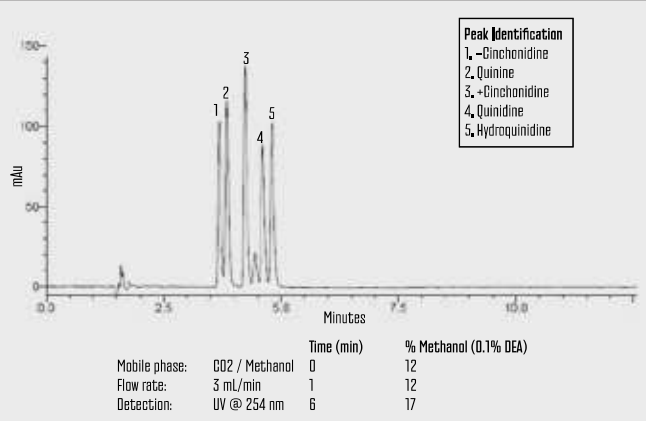
Vintage SFC Naphthyl

Vintage SFC Naphthyl is a naphthalene based SFC material, with high bonding density and intrinsic base deactivation due to a rigid structure that also enables the shape selectivity needed for many diastereomeric separations. It exhibits strong n-n interaction and charge transfer interactions, performing well for diastereomer separations and non-polar compounds. The unique properties of Vintage SFC Naphthyl place its selectivity between graphitized carbon and alkyl type stationary phases.

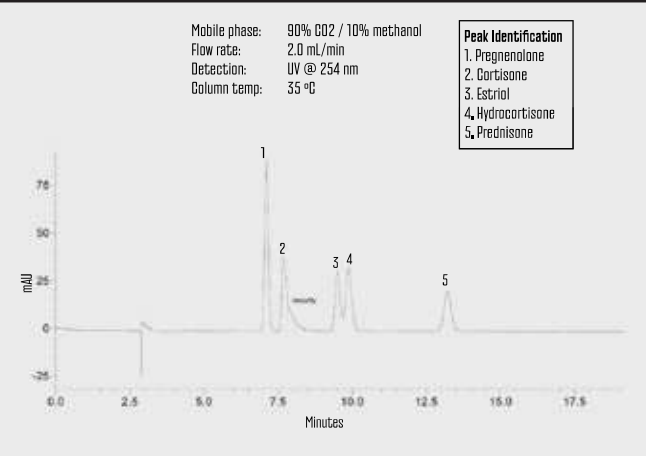
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Naphthyl	50	3.0	3	113191-SFC-NAP
Vintage SFC Naphthyl	150	3.0	5	133291-SFC-NAP
Vintage SFC Naphthyl	150	4.6	3	135191-SFC-NAP
Vintage SFC Naphthyl	100	3.0	1.8	523A91-SFC-NAP
Vintage SFC Naphthyl	100	3.0	3	123191-SFC-NAP
Vintage SFC Naphthyl	100	3.0	5	123291-SFC-NAP
Vintage SFC Naphthyl	100	4.6	3	125191-SFC-NAP
Vintage SFC Naphthyl	100	4.6	5	125291-SFC-NAP
Vintage SFC Naphthyl	150	3.0	3	133191-SFC-NAP
Vintage SFC Naphthyl	150	4.6	5	135291-SFC-NAP
Vintage SFC Naphthyl	250	4.6	5	155291-SFC-NAP
Vintage SFC Naphthyl Prep	150	10	5	137291-SFC-NAP
Vintage SFC Naphthyl Prep	150	20	5	138291-SFC-NAP
Vintage SFC Naphthyl Prep	150	30	5	13N291-SFC-NAP
Vintage SFC Naphthyl Prep	250	20	5	158291-SFC-NAP
Vintage SFC Naphthyl Prep	250	30	5	15N291-SFC-NAP
Vintage SFC Naphthyl Prep	250	50	5	15F291-SFC-NAP
Vintage SFC Naphthyl Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-NAP
Vintage SFC Naphthyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-NAP
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LSales@vintagechrom.com

SFC analysis of structurally similar quinine derivatives using Vintage SFC Naphthyl, 150 x 4.6 mm, 3 µm.



SFC analysis of structurally similar steroids using Vintage SFC Naphthyl, 250 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

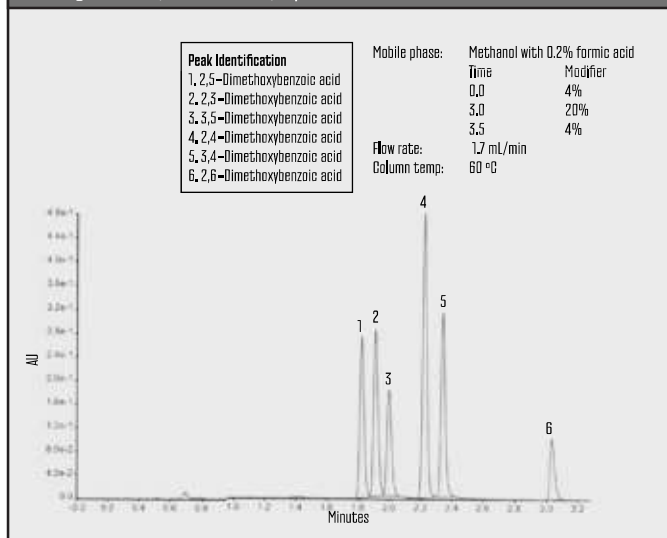
Vintage SFC Diol

Vintage SFC Diol is designed specifically for SFC with a high-density diol surface coverage which ensures separations are better and more reproducible than conventional unbonded silica. Vintage SFC Diol is particularly suitable for acidic and basic analytes. This phase provides the selectivity of silica, without its reactivity.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage SFC Diol	50	2.1	1.8	512A91-SFC-D
Vintage SFC Diol	50	3.0	1.8	513A91-SFC-D
Vintage SFC Diol	50	3.0	3	113191-SFC-D
Vintage SFC Diol	100	3.0	1.8	523A91-SFC-D
Vintage SFC Diol	100	3.0	3	123191-SFC-D
Vintage SFC Diol	100	3.0	5	123291-SFC-D
Vintage SFC Diol	150	3.0	1.8	533A91-SFC-D
Vintage SFC Diol	150	3.0	3	133191-SFC-D
Vintage SFC Diol	150	3.0	5	133291-SFC-D
Vintage SFC Diol	150	4.6	3	13d191-SFC-D
Vintage SFC Diol	150	4.6	5	135291-SFC-D
Vintage SFC Diol	250	4.6	5	155291-SFC-D
Vintage SFC Diol Prep	150	20	5	138291-SFC-D
Vintage SFC Diol Prep	150	30	5	13N291-SFC-D
Vintage SFC Diol Prep	250	10	10	157391-SFC-D
Vintage SFC Diol Prep	250	20	5	158291-SFC-D
Vintage SFC Diol Prep	250	30	5	15N291-SFC-D
Vintage SFC Diol Prep	250	50	5	15F291-SFC-D
Vintage SFC Diol Analytical	10	2.0	5	500103-SFC-D
Guard Cartridges (Pkg. 5)				
Vintage SFC Diol Analytical	10	3.0	5	500101-SFC-D
Guard Cartridges (Pkg. 5)				
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler				

Other column dimensions, particle sizes, and guard cartridges are available.
Please enquire for more details at LCSales@vintagechrom.com

SFC analysis of dimethoxybenzoic acids using Vintage SFC Diol, 100 x 3.0 mm, 3 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

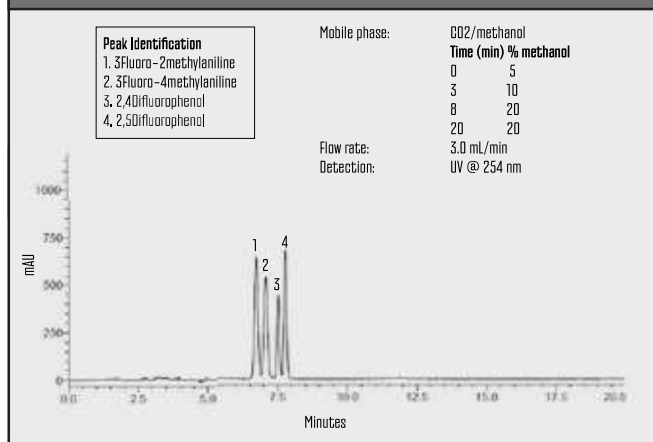
Vintage SFC FluoroBasic

Vintage SFC FluoroBasic is based on fluorinated imidazole chemistry, providing a highly basic and fluorinated character for this stationary phase. The addition of a fluorine groups into this stationary phase can be useful in promoting fluorophilic retention mechanisms which can provide improved retention for fluorinated compounds. A fluorophilic retention mechanism can be particularly useful in medicinal chemistry and drug discovery, where more than a third of newly approved small molecule drugs contain fluorine. Vintage SFC FluoroBasic is ideally suited for the retention and rapid separation of chemicals containing amine and acidic groups. Vintage SFC FluoroBasic can easily replace conventional stationary phases used in SFC and deliver superior performance.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC FluoroBasic	100	3.0	3	123191-SFC-FLBC
Vintage SFC FluoroBasic	100	3.0	5	123291-SFC-FLBC
Vintage SFC FluoroBasic	150	3.0	3	133191-SFC-FLBC
Vintage SFC FluoroBasic	150	3.0	5	133291-SFC-FLBC
Vintage SFC FluoroBasic	150	4.6	3	135191-SFC-FLBC
Vintage SFC FluoroBasic	150	4.6	5	135291-SFC-FLBC
Vintage SFC FluoroBasic	250	4.6	5	155291-SFC-FLBC
Vintage SFC FluoroBasic Prep	150	20	5	138291-SFC-FLBC
Vintage SFC FluoroBasic Prep	150	30	5	13N291-SFC-FLBC
Vintage SFC FluoroBasic Prep	250	20	5	158291-SFC-FLBC
Vintage SFC FluoroBasic Prep	250	30	5	15N291-SFC-FLBC
Vintage SFC FluoroBasic Prep	250	50	5	15F291-SFC-FLBC
Vintage SFC FluoroBasic	10	2.0	5	500103-SFC-FLBC
Vintage SFC FluoroBasic	10	3.0	5	500101-SFC-FLBC
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available.
Please enquire for more details at LCSales@vintagechrom.com

SFC analysis of fluorinated compounds (functionalized aniline (basic) and phenolic (acidic) compounds), with no additives using Vintage SFC FluoroBasic, 250 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage SFC 4-Ethyl Pyridine

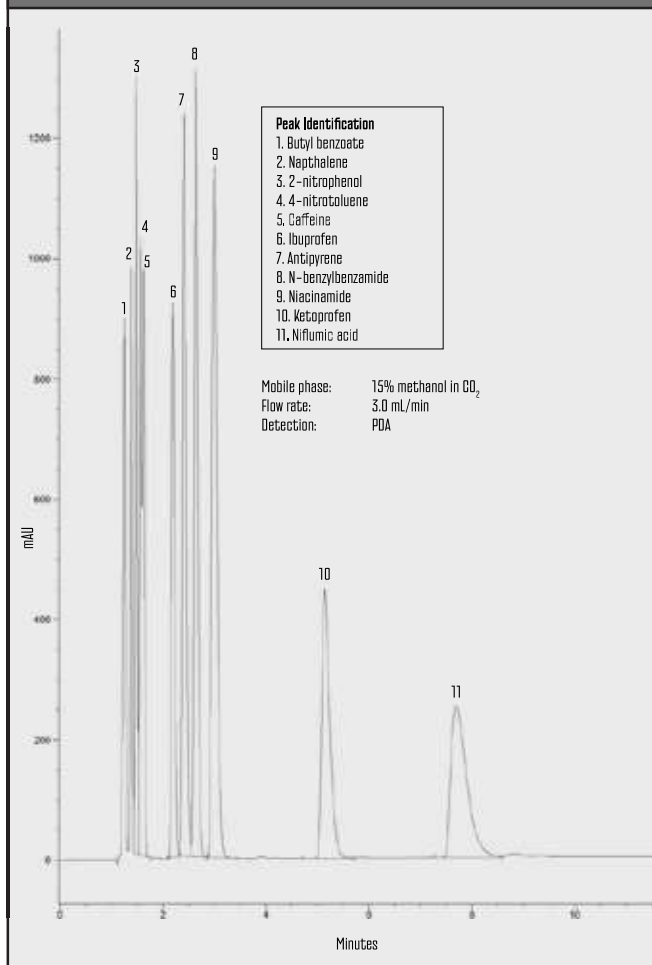
Vintage SFC 4-Ethyl Pyridine is an alternative to and provides different selectivity to Vintage SFC Ethyl Pyridine (2-ethyl pyridine). This endcapped stationary phase has proven superior to conventional stationary phases (such as diol and cyano phases) in the areas of separation selectivity, peak shape and loading capacity. Vintage SFC 4-Ethyl Pyridine can easily replace conventional stationary phases used in SFC while delivering superior performance.

Vintage SFC 4-Ethyl Pyridine provides better separations for amines in comparison with the 4-Ethyl Pyridine II.

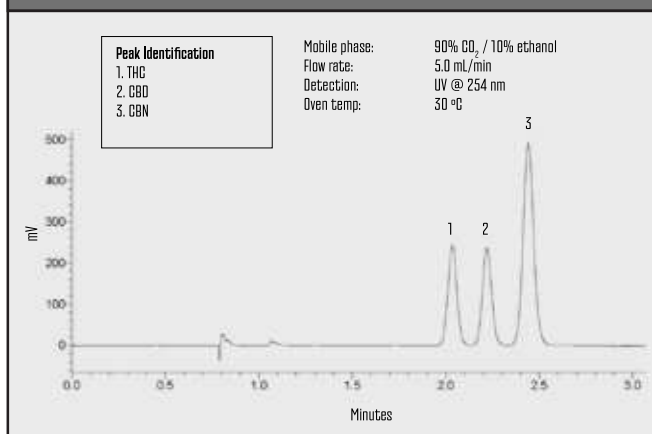
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC 4-Ethyl Pyridine	50	3.0	3	113191-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	50	4.6	3	115191-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	100	3.0	3	123191-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	100	3.0	5	123291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	100	4.6	3	125191-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	100	4.6	5	125291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	150	3.0	5	133291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	150	4.6	3	135191-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	150	3.0	3	133191-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	150	4.6	5	135291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	250	4.6	5	155291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	150	20	5	138291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine	150	30	5	13N291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Prep	250	20	5	158291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Prep	250	30	5	15N291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Prep	250	50	10	15F391-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Prep	250	50	5	15F291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Prep	250	50	5	15F291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Prep	250	50	5	15F291-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-4PYE
Vintage SFC 4-Ethyl Pyridine Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-4PYE
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available.
Please enquire for more details at LCSales@vintagechrom.com

SFC analysis of pharmaceutical compounds, including ibuprofen, ketoprofen and niflumic acid, using Vintage SFC 4-Ethyl Pyridine, 250 x 4.6 mm, 5 µm



SFC analysis of cannabinoids using Vintage SFC 4-Ethyl Pyridine, 250 x 4.6 mm, 10 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage SFC 4-Ethyl Pyridine II

Vintage SFC 4-Ethyl Pyridine II is based on ethyl pyridine chemistry and is non-encapped, providing a unique character for this stationary phase. Vintage SFC 4-Ethyl Pyridine II is the SFC column ideally suited for the retention and rapid separation of chemicals containing acid groups. Vintage SFC 4-Ethyl Pyridine II can easily replace conventional stationary phases used in SFC and deliver superior performance. This phase provides alternative selectivity to the Vintage SFC Ethyl Pyridine II.

This phase is non-encapped and provides superior separation of acids in comparison with the Vintage SFC 4-Ethyl Pyridine.

Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Part Number
Vintage SFC 4-Ethyl Pyridine II	100	3.0	5	123191-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II	100	3.0	5	123291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II	150	3.0	3	133191-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II	150	3.0	5	133291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II	150	4.6	3	135191-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II	150	4.6	5	135291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II	250	4.6	5	155291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II Prep	150	20	5	138291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II Prep	150	30	5	13N291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II Prep	250	20	5	158291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II Prep	250	30	5	15N291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II Prep	250	50	5	15F291-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-4PYE-II
Vintage SFC 4-Ethyl Pyridine II Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-4PYE-II
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

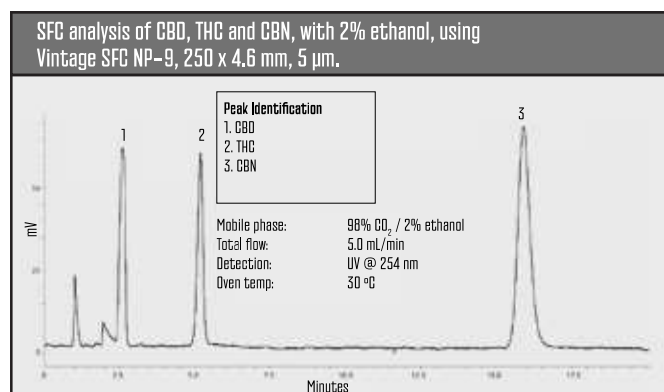
Vintage SFC NP-9

Vintage SFC NP-9 is the product of Vintage Chrom column research effort to develop products that are specifically designed to tackle the separation of complex natural product samples. Vintage SFC NP-9 has been specifically optimized for the separation and isolation of THC and CBD from cannabis. The chromatogram shown (right) highlights the optimized separation of THC-Delta 9, CBD and CBN using only 2% ethanol. With a low amount of ethanol in the mobile phase it is possible to rapidly recover CBD, THC and CBN isolates collected from chromatography. Vintage SFC NP-9 is optimised to deliver the maximum separation alpha between CBD and THC and is best for the removal of THC.

Vintage SFC NP-9 has a quicker cycle time for the separation of CBD and THC. However, if higher resolution is required, the Vintage SFC NP-10 should be used. Additionally, Vintage SFC NP-10 has a higher loading capacity than the Vintage SFC NP-9.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC NP-9	100	3	5	1232X1-SFC-N9
Vintage SFC NP-9	150	3	5	1332X1-SFC-N9
Vintage SFC NP-9	150	4.6	5	1352X1-SFC-N9
Vintage SFC NP-9	250	4.6	5	1553X1-SFC-N9
Vintage SFC NP-9	250	4.6	5	1552X1-SFC-N9
Vintage SFC NP-9 Prep	150	20	5	1382X1-SFC-N9
Vintage SFC NP-9 Prep	150	30	5	13N2X1-SFC-N9
Vintage SFC NP-9 Prep	250	10	10	1573X1-SFC-N9
Vintage SFC NP-9 Prep	250	20	5	1582X1-SFC-N9
Vintage SFC NP-9 Prep	250	30	10	15N3X1-SFC-N9
Vintage SFC NP-9 Prep	250	30	5	15N2X1-SFC-N9
Vintage SFC NP-9 Prep	250	50	10	15F3X1-SFC-N9
Vintage SFC NP-9 Prep	250	50	5	15F2X1-SFC-N9
Vintage SFC NP-9 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-SFC-N9
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com



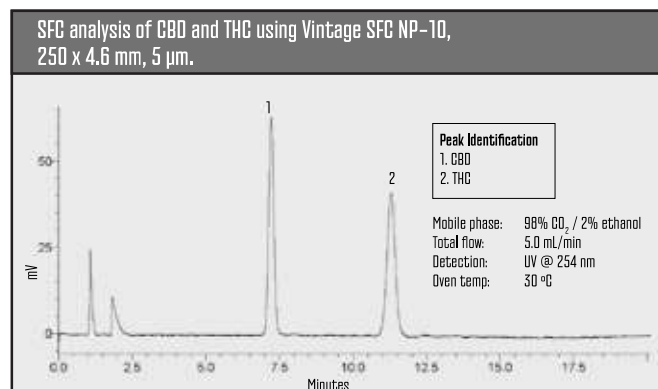
Vintage SFC NP-10

Vintage SFC NP-10 is the product of Vintage Chrom column research effort to develop products that are specifically designed to tackle the separation of complex natural product samples. Vintage SFC NP-10 has been specifically optimized for the separation and isolation of THC and CBD from cannabis. The chromatogram shown below highlights the optimized separation of THC-Delta 9 and CBD using only 2% ethanol. With a low amount of ethanol in the mobile phase it is possible to rapidly recover CBD and THC isolates collected from chromatography.

Vintage SFC NP-9 has a quicker cycle time for the separation of CBD and THC. However, if higher resolution is required, the Vintage SFC NP-10 should be used. Additionally, Vintage SFC NP-10 has a higher loading capacity than the Vintage SFC NP-9.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC NP-10	100	3.0	5	1232X1-SFC-N10
Vintage SFC NP-10	150	3.0	5	1332X1-SFC-N10
Vintage SFC NP-10	150	4.6	5	1352X1-SFC-N10
Vintage SFC NP-10	250	4.6	5	1552X1-SFC-N10
Vintage SFC NP-10 Prep	150	20	5	1382X1-SFC-N10
Vintage SFC NP-10 Prep	150	30	5	13N2X1-SFC-N10
Vintage SFC NP-10 Prep	250	20	5	1582X1-SFC-N10
Vintage SFC NP-10 Prep	250	30	5	15N2X1-SFC-N10
Vintage SFC NP-10 Prep	250	50	5	15F291-SFC-N10
Vintage SFC NP-10 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500101-SFC-N10
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com



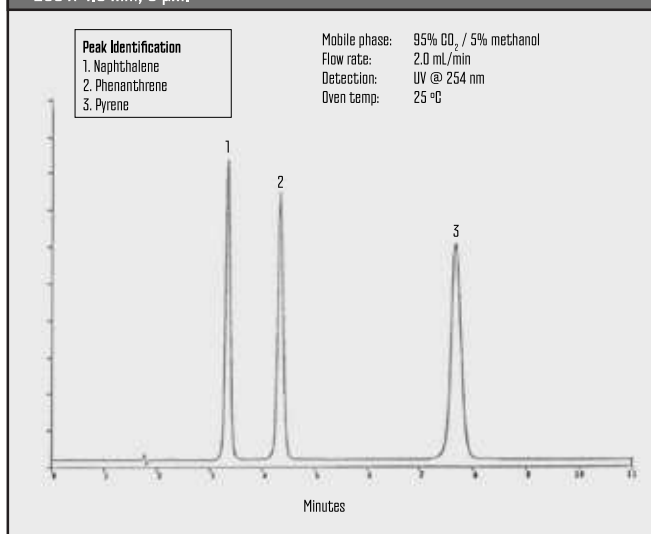
Vintage SFC PFP

Vintage SFC PFP is a fluorinated aromatic stationary phase providing a highly selective character for SFC separations. It is specifically designed for the separation of geometrical isomers as well as diastereomers. Vintage SFC PFP is the column of choice in separating compounds that contain aromatic groups, polarizable electrons and conjugate systems. In addition, it is useful for the separation of halogenated compounds. In many cases Vintage SFC PFP provides orthogonal separations when compared to Vintage SFC Nitro. Vintage SFC PFP can easily replace conventional stationary phases used in SFC and deliver superior performance.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC PFP	50	3.0	1.8	513A91-SFC-PFP
Vintage SFC PFP	50	4.6	3	115191-SFC-PFP
Vintage SFC PFP	100	2.1	1.8	522A91-SFC-PFP
Vintage SFC PFP	100	3.0	3	123191-SFC-PFP
Vintage SFC PFP	100	3.0	5	123291-SFC-PFP
Vintage SFC PFP	100	4.6	3	125191-SFC-PFP
Vintage SFC PFP	100	4.6	5	125291-SFC-PFP
Vintage SFC PFP	150	3.0	3	133191-SFC-PFP
Vintage SFC PFP	150	3.0	5	133291-SFC-PFP
Vintage SFC PFP	150	4.6	3	135191-SFC-PFP
Vintage SFC PFP	150	4.6	5	135291-SFC-PFP
Vintage SFC PFP	250	4.6	5	155291-SFC-PFP
Vintage SFC PFP Prep	50	10	5	117291-SFC-PFP
Vintage SFC PFP Prep	150	20	5	138291-SFC-PFP
Vintage SFC PFP Prep	150	30	5	13N291-SFC-PFP
Vintage SFC PFP Prep	250	20	5	158291-SFC-PFP
Vintage SFC PFP Prep	250	30	5	15N291-SFC-PFP
Vintage SFC PFP Prep	250	50	5	15F291-SFC-PFP
Vintage SFC PFP Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-PFP
Vintage SFC PFP Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-PFP
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

SFC analysis of aromatic compounds using Vintage SFC PFP, 250 x 4.6 mm, 5 µm.



Vintage SFC Cyano

Vintage SFC Cyano is a high surface area cyano bonded material designed for SFC resulting in a higher surface area loading, in comparison with conventional cyano phases that are used for HPLC. The cyano functionality offers increased dipole interactions for alternative selectivity.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC Cyano	50	3.0	1.8	513A91-SFC-CN
Vintage SFC Cyano	100	3.0	3	123191-SFC-CN
Vintage SFC Cyano	100	3.0	5	123291-SFC-CN
Vintage SFC Cyano	150	3.0	3	133191-SFC-CN
Vintage SFC Cyano	150	3.0	5	133291-SFC-CN
Vintage SFC Cyano	150	4.6	3	135191-SFC-CN
Vintage SFC Cyano	150	3.0	1.8	533A91-SFC-CN
Vintage SFC Cyano	150	4.6	5	135291-SFC-CN
Vintage SFC Cyano	250	4.6	5	155291-SFC-CN
Vintage SFC Cyano Prep	150	20	5	138291-SFC-CN
Vintage SFC Cyano Prep	150	30	5	13N291-SFC-CN
Vintage SFC Cyano Prep	250	20	5	158291-SFC-CN
Vintage SFC Cyano Prep	250	30	5	15N291-SFC-CN
Vintage SFC Cyano Prep	250	50	5	15F291-SFC-CN
Vintage SFC Cyano Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-SFC-CN
Vintage SFC Cyano Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-SFC-CN
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

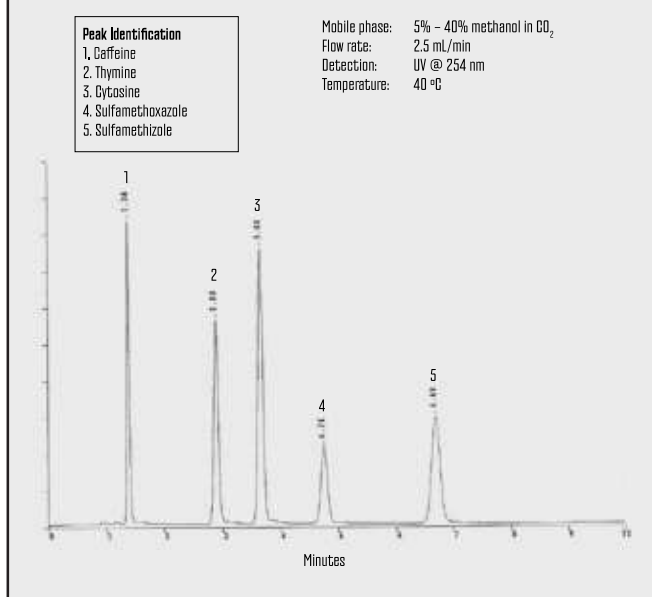
Vintage SFC DEAP

Vintage SFC DEAP is a diethyl amino propyl stationary phase with greater selectivity and superior peak shapes to conventional amino phases. Vintage SFC DEAP can enable the chromatographer to use simple mobile phases, reducing the need for additives and leading to easier fraction collection. It is particularly useful for alcohols and amides. Vintage SFC DEAP can easily replace conventional stationary phases used in SFC and deliver superior performance.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC DEAP	50.0	2.1	1.8	512A91-SFC-DEAP
Vintage SFC DEAP	50.0	3.0	1.8	513A91-SFC-DEAP
Vintage SFC DEAP	50.0	3.0	3.0	113191-SFC-DEAP
Vintage SFC DEAP	50.0	4.6	3.0	115191-SFC-DEAP
Vintage SFC DEAP	50.0	4.6	5.0	115291-SFC-DEAP
Vintage SFC DEAP	100.0	3.0	5.0	123291-SFC-DEAP
Vintage SFC DEAP	150.0	3.0	3.0	133191-SFC-DEAP
Vintage SFC DEAP	150.0	3.0	5.0	133291-SFC-DEAP
Vintage SFC DEAP	150.0	4.6	3.0	135191-SFC-DEAP
Vintage SFC DEAP	100.0	2.1	1.8	522A91-SFC-DEAP
Vintage SFC DEAP	100.0	3.0	1.8	523A91-SFC-DEAP
Vintage SFC DEAP	100.0	3.0	3.0	123191-SFC-DEAP
Vintage SFC DEAP	100.0	4.6	3.0	125191-SFC-DEAP
Vintage SFC DEAP	100.0	4.6	5.0	125291-SFC-DEAP
Vintage SFC DEAP	150.0	4.6	5.0	135291-SFC-DEAP
Vintage SFC DEAP	250.0	2.1	5.0	152291-SFC-DEAP
Vintage SFC DEAP	250.0	4.6	5.0	155291-SFC-DEAP
Vintage SFC DEAP Prep	100.0	20.0	5.0	128291-SFC-DEAP
Vintage SFC DEAP Prep	100.0	30.0	5.0	12N291-SFC-DEAP
Vintage SFC DEAP Prep	150.0	20.0	5.0	138291-SFC-DEAP
Vintage SFC DEAP Prep	150.0	30.0	5.0	13N291-SFC-DEAP
Vintage SFC DEAP Prep	250.0	20.0	5.0	158291-SFC-DEAP
Vintage SFC DEAP Prep	250.0	30.0	5.0	15N291-SFC-DEAP
Vintage SFC DEAP Prep	250.0	50.0	5.0	15F291-SFC-DEAP
Vintage SFC DEAP Analytical Guard Cartridges (Pkg. 5)	10.0	2.0	5.0	500103-SFC-DEAP
Vintage SFC DEAP Analytical Guard Cartridges (Pkg. 5)	10.0	3.0	5.0	500101-SFC-DEAP
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available.
Please enquire for more details at LCSales@vintagechrom.com

SFC analysis of various compounds using Vintage SFC DEAP,
150 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Vintage SFC Amine

Vintage SFC Amine is a high density NH₂ bonded material designed specifically for SFC which offers higher loading for preparative uses. This phase finds uses with compounds containing both alcohols and amines.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC Amine	50	3.0	1.8	513A91-SFC-NH
Vintage SFC Amine	50	3.0	10	113391-SFC-NH
Vintage SFC Amine	100	3.0	3	123191-SFC-NH
Vintage SFC Amine	100	3.0	5	123291-SFC-NH
Vintage SFC Amine	150	3.0	5	133291-SFC-NH
Vintage SFC Amine	150	3.0	3	133191-SFC-NH
Vintage SFC Amine	150	4.6	3	135191-SFC-NH
Vintage SFC Amine	150	4.6	5	135291-SFC-NH
Vintage SFC Amine	250	4.6	5	155291-SFC-NH
Vintage SFC Amine Prep	150	20	5	138291-SFC-NH
Vintage SFC Amine Prep	150	30	5	13N291-SFC-NH
Vintage SFC Amine Prep	250	20	5	158291-SFC-NH
Vintage SFC Amine Prep	250	30	5	15N291-SFC-NH
Vintage SFC Amine Prep	250	50	5	15F291-SFC-NH
Vintage SFC Amine Analytical Guard Cartridges (Pkg. 5)	100	2.0	5	500103-SFC-NH
Vintage SFC Amine Analytical Guard Cartridges (Pkg. 5)	100	3.0	5	500101-SFC-NH
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available.
Please enquire for more details at LCSales@vintagechrom.com

Vintage SFC Silica

Vintage SFC Silica has been developed specifically for SFC use. Vintage SFC Silica is a metal-free, ultra-high purity chromatographic media that is pressure stable and precisely engineered for high-performance SFC separations. Its surface is treated to maximize SFC separation interactions and loading capacity, while consistently delivering superior peak shape performance for many pharmaceutical compounds. Vintage SFC Silica enables the separation of chemicals with better peak shapes than typical HPLC silica columns

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage SFC Silica	50.0	3.0	5.0	113291-SFC-SI
Vintage SFC Silica	100.0	3.0	3.0	123191-SFC-SI
Vintage SFC Silica	100.0	3.0	5.0	123291-SFC-SI
Vintage SFC Silica	150.0	3.0	3.0	133191-SFC-SI
Vintage SFC Silica	150.0	3.0	5.0	133291-SFC-SI
Vintage SFC Silica	150.0	4.6	3.0	135191-SFC-SI
Vintage SFC Silica	100.0	4.6	3.0	125191-SFC-SI
Vintage SFC Silica	150.0	4.6	5.0	135291-SFC-SI
Vintage SFC Silica	250.0	2.1	10.0	152391-SFC-SI
Vintage SFC Silica	250.0	4.6	5.0	155291-SFC-SI
Vintage SFC Silica	100.0	4.6	3.0	125191-SFC-SI
Vintage SFC Silica	150.0	4.6	5.0	135291-SFC-SI
Vintage SFC Silica Prep	50.0	10.0	5.0	117291-SFC-SI
Vintage SFC Silica Prep	50.0	20.0	5.0	118291-SFC-SI
Vintage SFC Silica Prep	150.0	20.0	5.0	138291-SFC-SI
Vintage SFC Silica Prep	150.0	30.0	5.0	13N291-SFC-SI
Vintage SFC Silica Prep	250.0	20.0	10.0	158391-SFC-SI
Vintage SFC Silica Prep	250.0	20.0	5.0	158291-SFC-SI
Vintage SFC Silica Prep	250.0	30.0	5.0	15N291-SFC-SI
Vintage SFC Silica Analytical Guard Cartridges (Pkg. 5)	10.0	2.0	5.0	500103-SFC-SI
Vintage SFC Silica Analytical Guard Cartridges (Pkg. 5)	10.0	3.0	5.0	500101-SFC-SI
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions, particle sizes and guard cartridges are available.
Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent



VINTAGE
F Sep
F F

Vintage ARO & Vintage FSep Columns

Vintage Chrom's aromatic selectivity portfolio is anchored by two advanced product lines—Vintage ARO and Vintage FSep—engineered to deliver exceptional performance for the separation of aromatic, halogenated, and conjugated compounds across pharmaceutical, environmental, and chemical applications. Both lines are built on ultra-high-purity silica and leverage proprietary bonding chemistries to provide unique selectivity profiles that surpass those of traditional C18 columns, empowering chromatographers to resolve complex mixtures with confidence.

Vintage ARO

Columns feature a range of aromatic stationary phases—including Phenyl, Biphenyl, Diphenyl, Naphthyl, and Phenyl Hexyl—each designed to maximize π - π interactions and shape selectivity. These phases are ideal for analytes with aromatic rings, conjugated systems, and polarizable electrons, offering enhanced retention and resolution for challenging compounds such as antibiotics, nucleosides, natural products, and aromatic pharmaceuticals. The high-density bonding technology ensures robust performance, durability, and excellent lot-to-lot reproducibility. The Vintage ARO line is available in multiple particle sizes and dimensions, ranging from analytical to preparative scales, supporting both routine analysis and advanced method development.

Vintage FSep

Vintage FSep columns represent the next generation of aromatic and fluorinated stationary phases, engineered for fast, high-throughput separations and outstanding LC-MS compatibility. This product line features advanced chemistries such as pentafluorophenyl (PFP LB), perfluorooctyl (FO LB), and specialty fluorosep phenyl (FSP) phases, each designed to deliver unique selectivity profiles that excel where traditional C18 and even standard PFP columns fall short. Vintage FSep 5Phenyl utilizes bonded pentafluorophenyl groups to provide strong π - π and dipole interactions, enabling superior retention and resolution for halogenated compounds, aromatics, and trace impurities—even in complex matrices. The FO LB phase utilizes perfluorooctyl chemistry for the selective analysis of halogenated analytes and hydrophobic contaminants, providing ultra-low bleed for sensitive LC-MS applications. The FSP phase further expands selectivity options, delivering robust performance and enhanced interaction with aromatics, halogens, and epimers. Across all phases, proprietary stabilization and low-bleed technology ensure exceptional baseline stability, extended column lifetimes, and reliable quantification for the most demanding applications in pharmaceuticals, environmental analysis, and impurity profiling.

Together, Vintage ARO and Vintage FSep columns provide laboratories with a comprehensive toolkit for tackling the most demanding aromatic and halogenated separations. Both lines are supported by a full range of guard columns and custom configurations, ensuring scalability from method development to preparative purification.

Key Benefits:

	Vintage ARO	Vintage FSep
Selectivity Mechanism	π - π interactions (phenyl, biphenyl, naphthyl)	π - π , dipole, and fluorinated interactions
Target Analytes	Aromatics, conjugated systems, natural products	Halogenated, fluorinated, aromatic compounds
Phases	Phenyl, Biphenyl, Diphenyl, Naphthyl, Phenyl Hexyl	PFP LB, FO (Fluoro Octyl), FSP (Fluorosep Phenyl)

For technical support or custom orders, contact LCSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

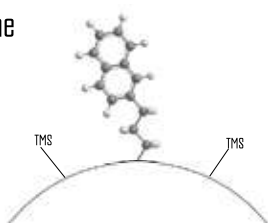
Vintage ARO

Vintage FSep

Equivalent

Vintage ARO Naphthyl

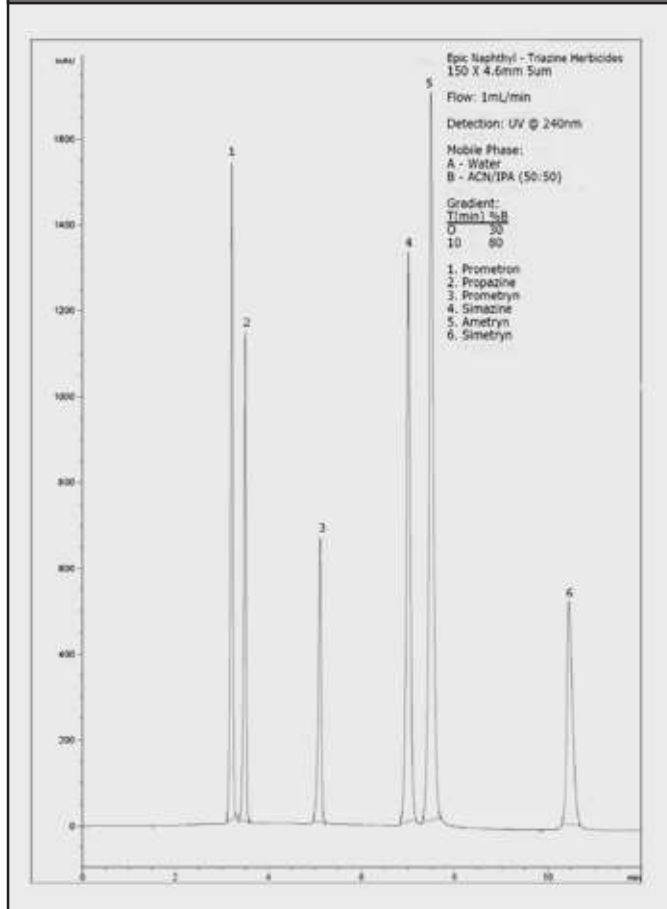
Vintage ARO Naphthyl is a naphthalene based material, with high bonding density and intrinsic base deactivation due to a rigid structure that also enables the shape selectivity needed for many diastereomeric separations. It exhibits strong π - π interaction and charge transfer interactions and performs well for diastereomer separations and non-polar compounds. The unique properties of Vintage ARO Naphthyl places its selectivity between graphitized carbon and alkyl type stationary phases.



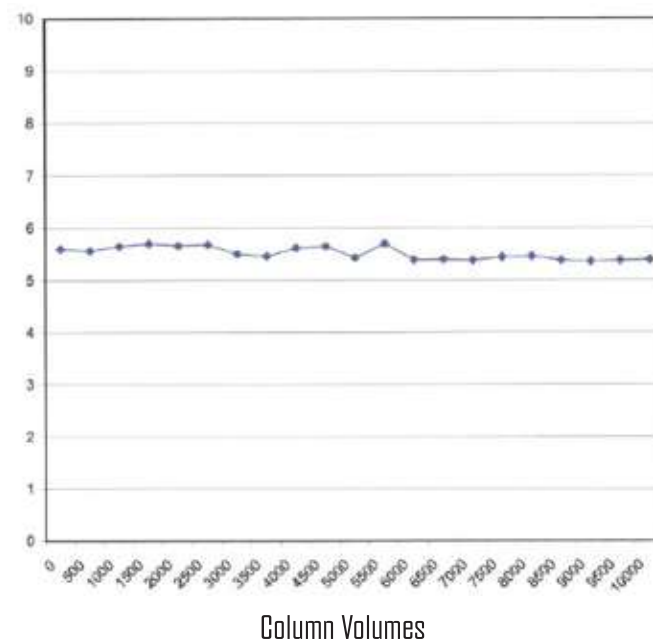
Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Part No.
Vintage ARO Naphthyl	50	2.1	1.8	512A91-NAP
Vintage ARO Naphthyl	50	2.1	3	112191-NAP
Vintage ARO Naphthyl	50	2.1	5	112291-NAP
Vintage ARO Naphthyl	50	3.0	1.8	513A91-NAP
Vintage ARO Naphthyl	100	2.1	1.8	522A91-NAP
Vintage ARO Naphthyl	100	2.1	3	122191-NAP
Vintage ARO Naphthyl	100	2.1	5	122291-NAP
Vintage ARO Naphthyl	100	4.6	3	125191-NAP
Vintage ARO Naphthyl	150	2.1	3	132191-NAP
Vintage ARO Naphthyl	150	2.1	5	132291-NAP
Vintage ARO Naphthyl	150	4.6	3	135191-NAP
Vintage ARO Naphthyl	150	4.6	5	135291-NAP
Vintage ARO Naphthyl	250	4.6	5	155291-NAP
Vintage ARO Naphthyl Prep	250	20	5	158291-NAP
Vintage ARO Naphthyl Prep	250	30	5	15N291-NAP
Vintage ARO Naphthyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-NAP
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler				

Other column dimensions and guard cartridges are available. Please enquire for more details at USSales@VintageChrom.com

Analysis of Triazine Herbicides on Vintage ARO Naphthyl 150x4.6mm



Retention time for Naphthalene pH 10 mobile phase



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

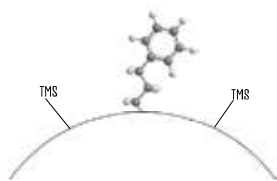
Vintage ARO

Vintage FSep

Equivalent

Vintage ARO Phenyl

Vintage ARO Phenyl is a n-basic (electron-donating) stationary phase that offers overall retention characteristics similar to alkyl phases, while providing distinct alternate selectivity through strong n-n interactions from its phenyl rings. This phase is especially effective for compounds that benefit from aromatic interactions, including antibiotics such as tetracyclines, moderate bases like anesthetics, certain acidic compounds such as quinoline antibiotics, and nucleosides. The high-density bonding technology used in Vintage ARO Phenyl ensures superior chromatographic performance, outstanding durability, and enhanced lot-to-lot reproducibility. With its advanced phenyl-based interaction, Vintage ARO Phenyl delivers enhanced selectivity and reliability for demanding chromatographic applications.



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage ARO Phenyl	50	2.1	1.8	512A91-PH
Vintage ARO Phenyl	50	2.1	3	112191-PH
Vintage ARO Phenyl	50	2.1	5	112291-PH
Vintage ARO Phenyl	100	2.1	1.8	522A91-PH
Vintage ARO Phenyl	100	2.1	3	122191-PH
Vintage ARO Phenyl	100	2.1	5	122291-PH
Vintage ARO Phenyl	100	4.6	3	125191-PH
Vintage ARO Phenyl	150	2.1	3	132191-PH
Vintage ARO Phenyl	150	2.1	5	132291-PH
Vintage ARO Phenyl	150	4.6	3	135191-PH
Vintage ARO Phenyl	150	4.6	5	135291-PH
Vintage ARO Phenyl	250	4.6	5	155291-PH
Vintage ARO Phenyl Prep	250	20	5	158291-PH
Vintage ARO Phenyl Prep	250	30	5	15N291-PH
Vintage ARO Phenyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-PH
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at: LCSales@VintageChrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

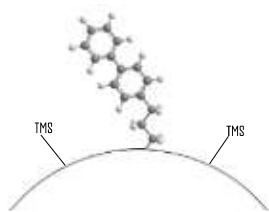
Vintage ARO

Vintage FSep

Equivalent

Vintage ARO Biphenyl

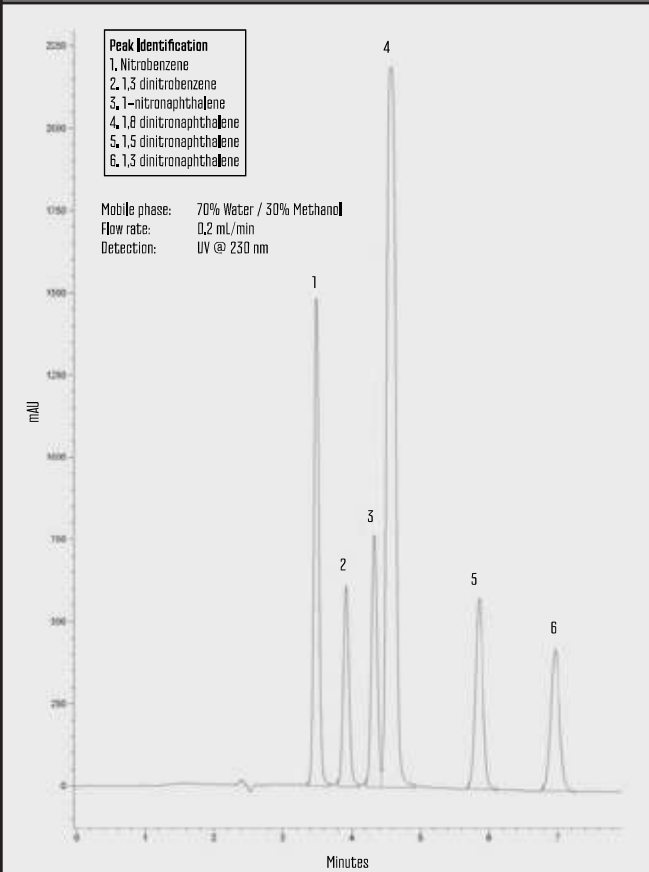
Vintage ARO Biphenyl is a uniquely engineered stationary phase that offers properties distinctly different from traditional ODS (C18) phases. This phase features bonded biphenyl groups covalently attached to high-purity silica, enabling strong π - π electron interactions. These interactions provide enhanced retention for compounds containing polarizable electrons, making Vintage ARO Biphenyl especially effective for the separation of halogenated compounds, aromatics, nitro aromatics, and conjugated systems. The unique selectivity profile of this phase makes it a valuable tool for resolving complex mixtures where alternative aromatic selectivity is required.



Phase	Length (mm)	ID (mm)	Particle Size (μm)	Part No.
Vintage ARO Biphenyl	50	2.1	1.8	512A91-BPH
Vintage ARO Biphenyl	50	2.1	3	112191-BPH
Vintage ARO Biphenyl	50	2.1	5	112291-BPH
Vintage ARO Biphenyl	50	3.0	1.8	513A91-BPH
Vintage ARO Biphenyl	100	2.1	1.8	522A91-BPH
Vintage ARO Biphenyl	100	2.1	3	122191-BPH
Vintage ARO Biphenyl	100	2.1	5	122291-BPH
Vintage ARO Biphenyl	100	4.6	3	125191-BPH
Vintage ARO Biphenyl	150	2.1	1.8	532A91-BPH
Vintage ARO Biphenyl	150	2.1	3	132191-BPH
Vintage ARO Biphenyl	150	2.1	5	132291-BPH
Vintage ARO Biphenyl	150	4.6	3	135191-BPH
Vintage ARO Biphenyl	150	4.6	5	135291-BPH
Vintage ARO Biphenyl	250	4.6	5	155291-BPH
Vintage ARO Biphenyl Prep	150	30	5	13N291-BPH
Vintage ARO Biphenyl Prep	250	20	5	158291-BPH
Vintage ARO Biphenyl Prep	250	30	5	15N291-BPH
Vintage ARO Biphenyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-BPH
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler				

Other column dimensions and guard cartridges are available. Please enquire for more details at LSales@VintageChrom.com

HPLC analysis of aromatic compounds using Vintage ARO Biphenyl, 100 x 2.1 mm, 1.8 μm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

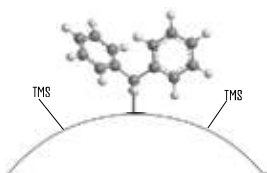
Vintage ARO

Vintage FSep

Equivalent

Vintage ARO Diphenyl

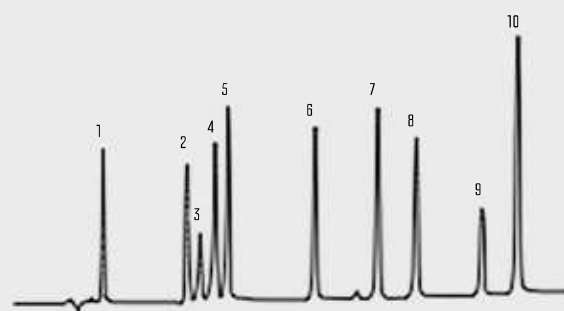
Vintage ARO Diphenyl is a bonded phase with reduced hydrophobicity that offers novel selectivity along with enhanced speed and resolution in HPLC separations. This phase employs strong dipole-dipole hydrogen bonding and n-n interactions to deliver distinct selectivity for compounds containing double bonds or aromatic functional groups. The unique diphenyl arrangement also enhances steric selectivity, providing an additional chromatographic interaction for more complex separations. Vintage ARO Diphenyl exhibits high selectivity for proteins with aromatic side chains and is manufactured using proprietary high-density bonding technology, which ensures superior performance, durability, and improved lot-to-lot reproducibility for demanding analytical applications.



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage ARO Diphenyl	50	2.1	1.8	512A91-DPH
Vintage ARO Diphenyl	50	2.1	3	112191-DPH
Vintage ARO Diphenyl	50	2.1	5	112291-DPH
Vintage ARO Diphenyl	100	2.1	1.8	522A91-DPH
Vintage ARO Diphenyl	100	2.1	3	122191-DPH
Vintage ARO Diphenyl	100	2.1	5	122291-DPH
Vintage ARO Diphenyl	100	3.0	1.8	513A91-DPH
Vintage ARO Diphenyl	100	4.6	3	125191-DPH
Vintage ARO Diphenyl	150	2.1	3	132191-DPH
Vintage ARO Diphenyl	150	2.1	5	132291-DPH
Vintage ARO Diphenyl	150	4.6	3	135191-DPH
Vintage ARO Diphenyl	150	4.6	5	135291-DPH
Vintage ARO Diphenyl	250	4.6	5	155291-DPH
Vintage ARO Diphenyl Prep	250	20	5	158291-DPH
Vintage ARO Diphenyl Prep	250	30	5	15N291-DPH
Vintage ARO Diphenyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-DPH
Analytical Guard Cartridge	-	-	-	500100
Holder with integrated coupler				

Other column dimensions and guard cartridges are available. Please enquire for more details at: USSales@VintageChrom.com

HPLC analysis of polar pharmaceutical compounds using Vintage ARO Diphenyl, 150 x 4.6 mm, 5 µm.



Peak Identification
 1. Acetaminophen
 2. Acetanilide
 3. Salicylic acid
 4. Acetylsalicylic acid
 5. Phenacetin
 6. Carbamazepine
 7. Tolmetin
 8. Naproxen
 9. Ibuprofen
 10. Diclofenac

Mobile phase: A: Water+0.1% HCOOH
 B: MeCN+0.1% HCOOH
 Gradient: 25-80% B in 20 min
 Flow rate: 1.0 mL/min
 Detection: UV @ 254 nm
 Column temp: 25 °C

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

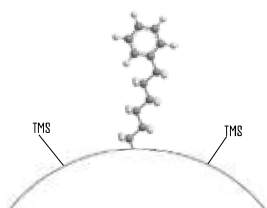
Vintage ARO

Vintage FSep

Equivalent

Vintage ARO Phenyl Hexyl

Vintage ARO Phenyl Hexyl features a 6-carbon (hexyl) linker attached to a phenyl phase, bonded to high-purity silica. The hexyl chain imparts unique selectivity and increased hydrolytic stability compared to propyl-linked phenyl phases. This retentive phase provides distinct selectivity compared to straight-chain hydrocarbon phases like C6, C8, or C18, making it especially valuable for aromatic analytes, complex sample matrices, and polar pharmaceutical compounds. The proprietary high-density bonding technology ensures superior chromatographic performance, exceptional durability, and enhanced lot-to-lot reproducibility. Vintage ARO Phenyl Hexyl offers chromatographers a robust and versatile phenyl-based interaction for enhanced resolution and method reliability in demanding analytical applications.

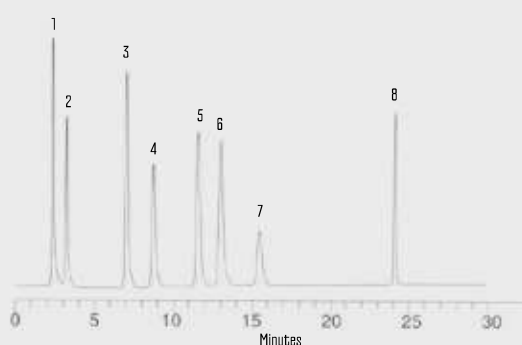


Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage ARO Phenyl Hexyl	50	2.1	1.8	512A91-PHX
Vintage ARO Phenyl Hexyl	50	2.1	3	112191-PHX
Vintage ARO Phenyl Hexyl	50	2.1	5	112191-PHX
Vintage ARO Phenyl Hexyl	50	4.0	3	114191-PHX
Vintage ARO Phenyl Hexyl	50	4.6	5	115291-PHX
Vintage ARO Phenyl Hexyl	75	2.1	3	192191-PHX
Vintage ARO Phenyl Hexyl	75	3.0	3	193191-PHX
Vintage ARO Phenyl Hexyl	75	4.6	3	195191-PHX
Vintage ARO Phenyl Hexyl	100	2.1	1.8	522A91-PHX
Vintage ARO Phenyl Hexyl	100	2.1	3	122191-PHX
Vintage ARO Phenyl Hexyl	100	2.1	5	122291-PHX
Vintage ARO Phenyl Hexyl	100	3.0	3	123191-PHX
Vintage ARO Phenyl Hexyl	100	4.6	3	125191-PHX
Vintage ARO Phenyl Hexyl	150	2.1	3	132191-PHX
Vintage ARO Phenyl Hexyl	150	2.1	5	132291-PHX
Vintage ARO Phenyl Hexyl	150	3	3	133191-PHX
Vintage ARO Phenyl Hexyl	150	4.6	3	135191-PHX
Vintage ARO Phenyl Hexyl	150	4.6	5	135291-PHX
Vintage ARO Phenyl Hexyl	250	4.0	5	154291-PHX
Vintage ARO Phenyl Hexyl	250	4.6	10	155391-PHX
Vintage ARO Phenyl Hexyl	250	4.6	3	155191-PHX
Vintage ARO Phenyl Hexyl	250	4.6	5	155291-PHX
Vintage ARO Phenyl Hexyl Prep	250	20	5	158291-PHX
Vintage ARO Phenyl Hexyl Prep	250	30	5	15N291-PHX
Vintage ARO Phenyl Hexyl Prep	250	20	10	158391-PHX

Vintage ARO Phenyl Hexyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-PHX
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at LSales@VintageChrom.com

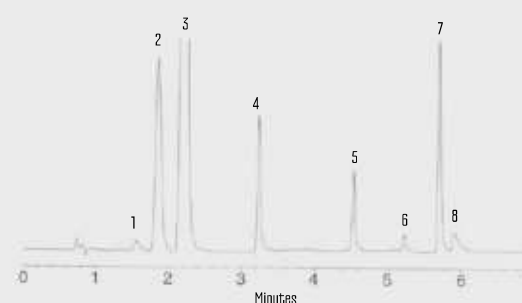
HPLC analysis of food additives using Vintage ARO Phenyl Hexyl, 150 x 4.6 mm, 5 µm.



Peak Identification
 1. Saccharin
 2. p-Hydroxybenzoic acid
 3. Sorbic acid
 4. p-Hydroxybenzoic acid methyl ester
 5. Dehydroacetic acid
 6. p-Toluic acid
 7. p-Hydroxybenzoic acid ethyl ester
 8. n-Propyl p-hydroxybenzoate

Mobile phase: A: 50 mM KH₂PO₄ + 0.1% H₃PO₄
 B: Acetonitrile
 Gradient: A/B (75:25) to A/B (25:75) in 18min, hold at A/B (25:75) for 12min
 Flow rate: 1.0 mL/min
 Detection: UV @ 230 nm
 Injection vol: 5 µL

HPLC analysis of polar pharmaceutical compounds using Vintage ARO Phenyl Hexyl, 50 x 4.6 mm, 3 µm.



Peak Identification
 1. P-Aminophenol
 2. Benzoic acid
 3. Acetaminophen
 4. Pseudoephedrine
 5. Butyl paraben
 6. Chlorpheniramine
 7. Diphenhydramine
 8. Dextromethorpha

Mobile phase: A: Acetonitrile
 B: Methanol/20 mM KH₂PO₄ (80:20)
 A/B (0:100) to A/B (80:20) in 5min
 Flow rate: 1.3 mL/min
 Detection: UV @ 214 nm
 Injection vol: 5 µL

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

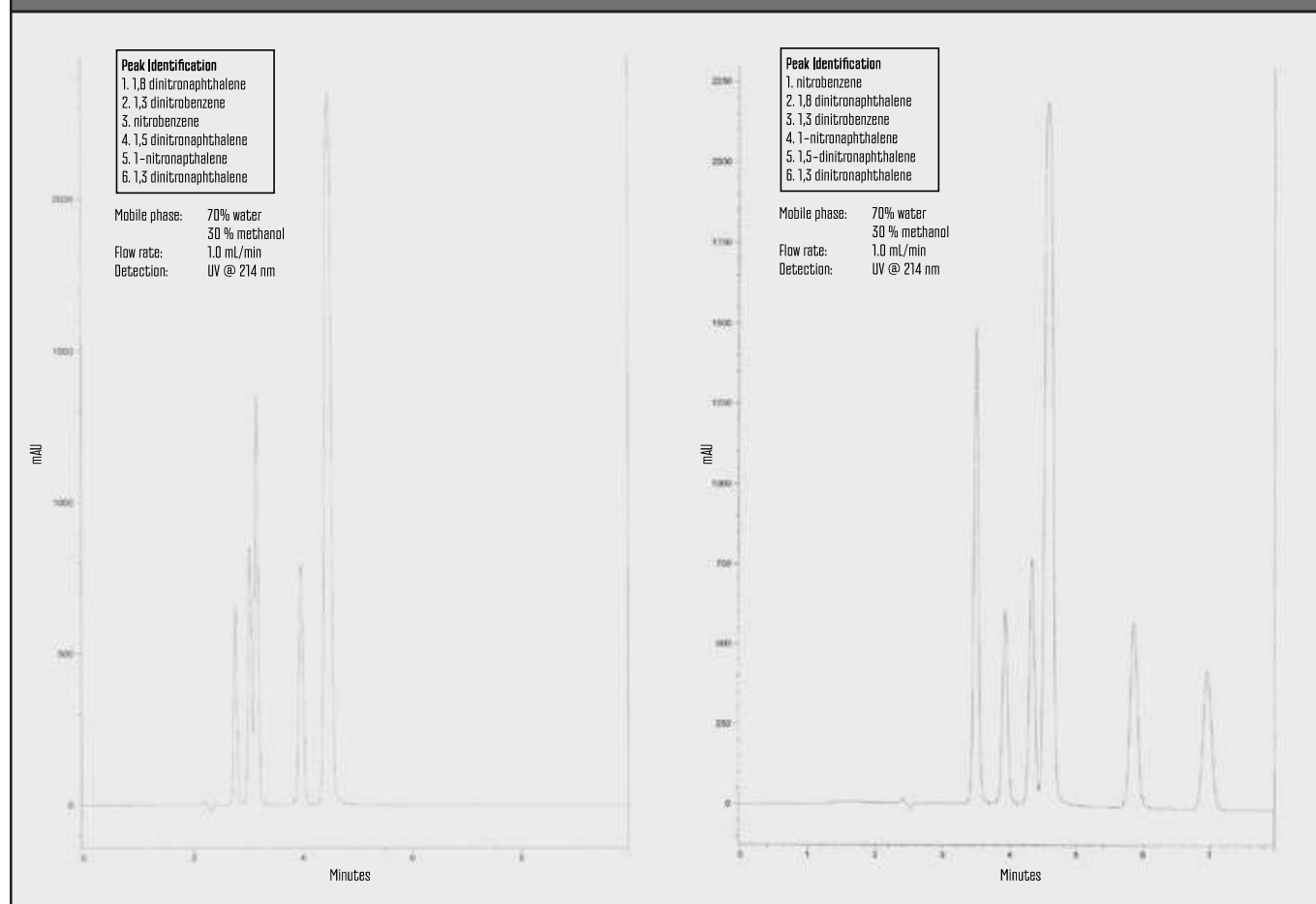
Equivalent

Vintage ARO MU Phenyl

Vintage ARO MU Phenyl is a highly base-deactivated stationary phase engineered through a multi-step process. The phase begins with phenyl groups bonded to ultra-high-purity synthetic silica, followed by a proprietary multi-step endcapping procedure that ensures exceptional inertness for both acidic and basic analytes. Unlike traditional phenyl phases, Vintage ARO MU Phenyl uses silica with a lower surface area, providing distinct retention and selectivity profiles compared to alkyl or other aromatic phases.

This n-basic phase leverages strong n-n interactions for enhanced selectivity toward aromatic and polarizable compounds, making it ideal for antibiotics, moderate bases (e.g., anesthetics), and acidic analytes like phenols or aromatic acids.

HPLC analysis of nitroaromatic compounds using Vintage Bond MU C18 (left) and Vintage Bond MU Phenyl (right), 150 x 4,6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage ARO MU Biphenyl

Vintage ARO MU Biphenyl is a highly base-deactivated stationary phase, produced through a multi-step process that begins with bonding biphenyl groups to ultra-high purity, synthetically produced spherical silica. This is followed by a proprietary multiple endcapping procedure, resulting in columns with exceptional inertness and minimized secondary interactions. Compared to traditional ODS (C18) phases, Vintage ARO MU Biphenyl offers truly unique selectivity due to the strong n-n electron interactions imparted by the bonded biphenyl groups. This enhanced interaction provides superior retention for a wide range of compounds containing polarizable electrons, including halogenated compounds, aromatics, nitro aromatics, and conjugated systems.

Utilizing a different silica with a lower surface area than some other biphenyl phases, Vintage ARO MU Biphenyl can deliver subtle differences in retention and selectivity, making it a valuable tool for method development. In many cases, it provides alternative selectivity to pentafluorophenyl stationary phases, offering chromatographers a versatile solution for challenging separations involving complex aromatic or highly polarizable analytes.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage Bond ARO MU Biphenyl	50	2.1	3	112191-BPHMU
Vintage Bond ARO MU Biphenyl	50	2.1	5	112291-BPHMU
Vintage Bond ARO MU Biphenyl	50	4.6	3	115191-BPHMU
Vintage Bond ARO MU Biphenyl	100	2.1	3	122191-BPHMU
Vintage Bond ARO MU Biphenyl	100	2.1	5	122291-BPHMU
Vintage Bond ARO MU Biphenyl	100	4.6	3	125191-BPHMU
Vintage Bond ARO MU Biphenyl	100	4.6	5	125291-BPHMU
Vintage Bond ARO MU Biphenyl	150	2.1	3	132191-BPHMU
Vintage Bond ARO MU Biphenyl	150	2.1	5	132291-BPHMU
Vintage Bond ARO MU Biphenyl	150	4.6	3	135191-BPHMU
Vintage Bond ARO MU Biphenyl	150	4.6	5	135291-BPHMU
Vintage Bond ARO MU Biphenyl	250	4.6	5	155291-BPHMU
Vintage Bond ARO MU Biphenyl	300	4.0	5	164291-BPHMU
Vintage Bond ARO MU Biphenyl	300	4.6	5	165291-BPHMU
Vintage Bond ARO MU Biphenyl Prep	150	50	5	13F291-BPHMU
Vintage Bond ARO MU Biphenyl Prep	250	10	5	157291-BPHMU
Vintage Bond ARO MU Biphenyl Prep	250	20	5	158291-BPHMU
Vintage Bond ARO MU Biphenyl Prep	250	30	5	15N291-BPHMU
Vintage Bond ARO MU Biphenyl Prep	50	20	5	118291-BPHMU
Vintage Bond ARO MU Biphenyl Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-BPHMU
Vintage Bond ARO MU Biphenyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-BPHMU
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available.
Please enquire for more details at LCSales@VintageChrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

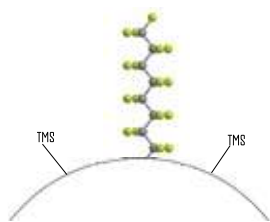
Vintage ARO

Vintage FSep

Equivalent

Vintage FSep Octyl

Vintage FSep Octyl is a baseline-stabilized perfluorooctyl (C8) phase engineered for high-performance separations of halogenated analytes, lipophilic compounds, and trace impurities in environmental samples. This unique fluorinated chemistry enables separations that traditional C18 and PFP phases cannot resolve. Thanks to its low bleed design, this phase is highly compatible with LC-MS, providing stable baselines and minimal interference for sensitive trace analyses. The proprietary stabilization technology extends column lifetimes and ensures robust performance. This makes it an ideal choice for challenging applications such as halogenated pharmaceuticals, PFAS analysis, and hydrophobic environmental contaminants, where selectivity, sensitivity, and long-term durability are critical.



Phase	Length (mm)	ID (mm)	Particle Size (μm)	Part No.
Vintage FSep Octyl	50	2.1	1.8	512A91-FO
Vintage FSep Octyl	50	2.1	3	112191-FO
Vintage FSep Octyl	100	2.1	1.8	522A91-FO
Vintage FSep Octyl	100	2.1	3	122191-FO
Vintage FSep Octyl	150	2.1	1.8	532A91-FO
Vintage FSep Octyl	150	2.1	3	132191-FO
Vintage FSep Octyl	150	3.0	3	133191-FO
Vintage FSep Octyl	150	4.6	3	135191-FO
Vintage FSep Octyl	150	4.6	5	135291-FO
Vintage FSep Octyl	250	4.6	5	155291-FO
Vintage FSep Octyl Prep	250	10	5	157291-FO
Vintage FSep Octyl Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-FO
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LCSales@VintageChrom.com

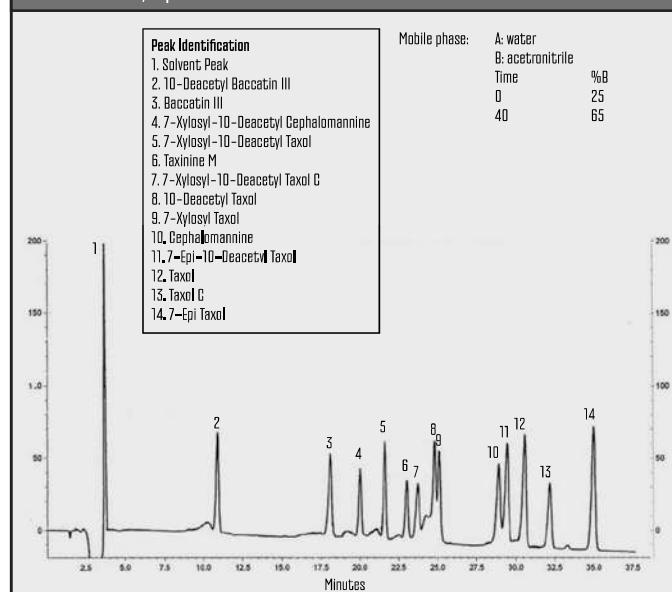
Vintage FSep FSP

Vintage FSep FSP is a unique reverse-phase stationary phase featuring bonded pentafluorophenyl groups, offering a distinctive selectivity compared to traditional C18 columns. Available in 60 and 100 angstrom, this fluorinated chemistry enhances interactions with aromatic compounds, halogens, conjugated systems, and epimers by facilitating strong pi-pi electron interactions, making it especially effective for separating compounds with polarizable electrons. Produced under strict quality control to ensure consistency, Vintage FSep FSP is validated for reliable method development and is particularly valuable for resolving challenging impurities and epimers in pharmaceuticals—where conventional ODS columns often fail—thus improving impurity profiling, quantification, and reproducibility.

Phase	Length (mm)	ID (mm)	Particle Size (μm)	Part No.
Vintage FSep FSP	150	4.6	5	135211-FSP
Vintage FSep FSP	250	4.0	5	154211-FSP
Vintage FSep FSP	250	4.6	5	155211-FSP
Vintage FSep FSP Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-FSP
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LCSales@VintageChrom.com

HPLC analysis of a taxol mixture using Vintage FSep FSP, 250 x 4.6 mm, 5 μm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

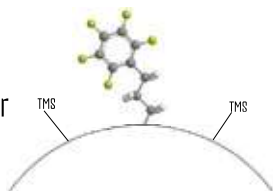
Vintage ARO

Vintage FSep

Equivalent

Vintage FSep PFP-LB

Vintage FSep PFP-LB is a pentafluorophenyl stationary phase that has been baseline-stabilized for high-performance chromatographic separations.



This unique phase offers properties distinctly different from traditional C18 columns, thanks to the bonded pentafluorophenyl groups that provide strong n-n electron interactions. These interactions result in enhanced retention for a wide variety of compounds, including natural products, halogenated compounds, aromatics, conjugated systems, and trace impurities in complex matrices.

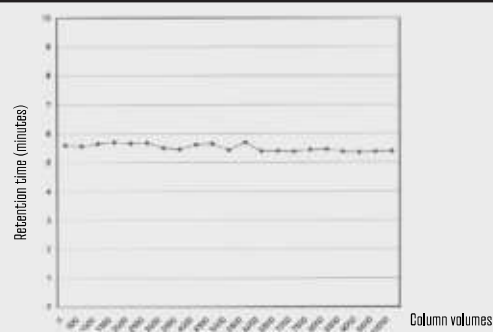
Many high-performance separations—especially those involving trace impurities—were previously unattainable with conventional PFP columns due to unacceptable baseline bleed. Vintage FSep PFP-LB overcomes these limitations, delivering low column bleed, extended column lifetimes, improved pH stability, and superior LC-MS compatibility. This makes it an exceptional choice for challenging analyses where selectivity, sensitivity, and reliability are critical.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part No.
Vintage FSep PFP-LB	50	2.1	1.8	512A91-PFP
Vintage FSep PFP-LB	50	2.1	3	112191-PFP
Vintage FSep PFP-LB	50	2.1	5	112291-PFP
Vintage FSep PFP-LB	50	4.6	5	115291-PFP
Vintage FSep PFP-LB	100	2.1	1.8	522A91-PFP
Vintage FSep PFP-LB	100	2.1	3	122191-PFP
Vintage FSep PFP-LB	100	2.1	5	122291-PFP
Vintage FSep PFP-LB	100	3.0	3	123191-PFP
Vintage FSep PFP-LB	100	4.6	3	125191-PFP
Vintage FSep PFP-LB	150	2.1	1.8	532A91-PFP
Vintage FSep PFP-LB	150	2.1	3	132191-PFP
Vintage FSep PFP-LB	150	2.1	5	132291-PFP
Vintage FSep PFP-LB	150	4.6	3	135191-PFP
Vintage FSep PFP-LB	150	4.6	5	135291-PFP
Vintage FSep PFP-LB	250	4.6	5	155291-PFP
Vintage FSep PFP-LB Prep	250	20	5	158291-PFP
Vintage FSep PFP-LB Prep	250	30	5	15N291-PFP
Vintage FSep PFP-LB Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-PFP

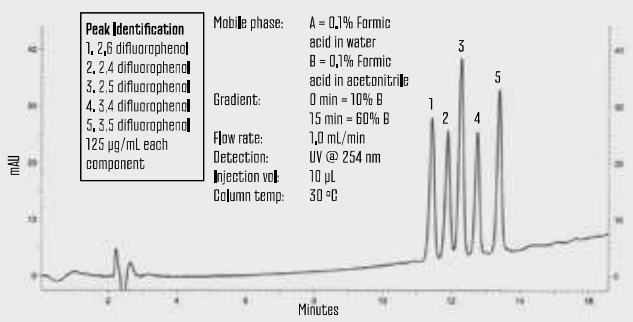
Analytical Guard Cartridge Holder with integrated couple - - - 500100

Other column dimensions and guard cartridges are available. Please enquire for more details at: LSales@VintageChrom.com

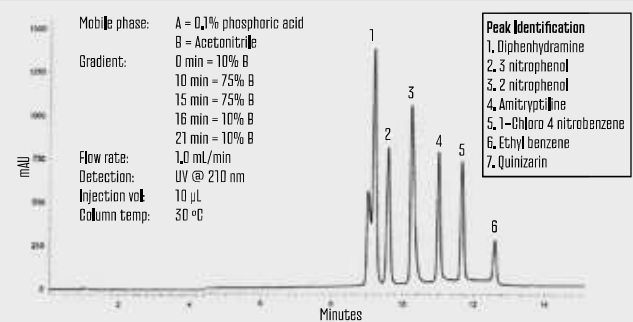
Column robustness studies of naphthalene at pH 10 over 10,000 column volumes using Vintage FSep PFP-LB, 250 x 4.6 mm, 5 µm.



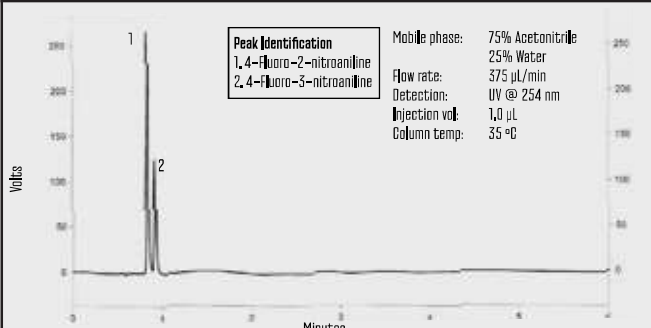
HPLC analysis of difluorophenols using Vintage FSep PFP-LB, 150 x 4.6 mm, 5 µm.



HPLC analysis of aromatics using Vintage FSep PFP-LB, 50 x 4.6 mm, 3 µm.



HPLC analysis of fluoro nitroanilines using Vintage FSep PFP-LB, 100 x 2.1 mm, 1.8 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Equivalent

Equivalent LC Columns

Legacy and current chromatographic methods often rely on established column technologies, which can sometimes be accompanied by variability in performance and consistency. Vintage Chrom Equivalents provide a high-quality, cost-effective alternative to both older legacy columns and many current leading brands, ensuring reliable, reproducible results across your analytical workflows.

Our product line is fully scalable from analytical to preparative formats and is engineered to deliver consistent performance, durability, and compatibility with a wide range of applications. Whether you are seeking to replace discontinued columns, standardize across multiple laboratories, or simply improve the reliability of your separations, Vintage Chrom Equivalents offer a seamless transition with proven quality and support. For more information or to discuss your specific needs, please contact us to learn how Vintage Chrom Equivalents can enhance your laboratory's productivity and confidence in results.

Features and Benefits

- Cost effective and comparable alternative to older leading brands to support legacy methods
- Better lot-to-lot reproducibility due to more stable production methods, especially when compared to very old brands



Material Characteristics (Other phases available in each product line)

Brand	Phase	Third Party Equivalent	Particle Size (µm)	USP Code
Maverick	C18	Avantor ACE®	3, 5	L1
Vintage Bond Z	C18	Agilent Zorbax® RX	3, 5	L1
Vintage KSiI	C18	Nouryon Kromasil®	3.5, 5, 7, 10	L1
Vintage KSiI	C8	Nouryon Kromasil®	3.5, 5, 7, 10	L7
Vintage Bond UL	C18	Beckman Ultrasphere®	3, 5	L1
Vintage Bond UL	C8	Beckman Ultrasphere®	3, 5	L7
DAS	ODS2	GL Sciences Inertsil®	5, 10	L1
DAS	ODS3	GL Sciences Inertsil®	3, 5	L1
Uniformity	C18	Waters Symmetry®	3.5, 5, 10	L1
Uniformity Secure	RP18	Waters SymmetryShield™	3.5, 5	L1
HyperLine	C18	Thermo Hypersil®	3, 5	L1
HyperLine	ODS C18	Thermo Hypersil®	3, 5, 10	L1
HyperLine	ODS2 C18	Thermo Hypersil®	3, 5	L1
MiniPak	C18	Waters µBondapak®	5, 10	L1
Mercury	dC18	Waters Atlantis™	3, 5	L1
Vintage PSep	ODS3	Whatman Partisil™	5, 10	L1
Nappa	C18(2)	Phenomenex Luna®	3, 5, 10, 15	L1
Vintage Bond UL	ODS1	Waters Spherisorb®	3, 5, 10	L1
Vintage Bond UL	ODS2	Waters Spherisorb®	3, 5, 10	L1
Vintage Star	C18	Waters SunFire™	2.5, 3.5, 5, 10	L1

*Other brand alternatives are also available including HyperLine Gold (Hypersil Gold alternative) and HyperLine HiPurity (Hypersil HiPurity alternative), etc. Please enquire for more details at LCA.LCSales@vintagechrom.com**Preparative columns of these phases are also available. Please enquire for more details at LCA.Sales@vintagechrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Maverick C18 Columns

The Maverick line exhibits equivalent selectivity to AvantorACE® HPLC columns. Maverick C18 provides a rugged, reproducible starting point for method development and applications with analytes differing in hydrophobicity, polar, moderately polar and non-polar analytes, uncharged acids and bases, ionized acids or bases using ion-pairing. Other Maverick phases are also available including AQ, C8, C4, Cyano and Phenyl. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Pore Size (Å)	Part Number
Maverick C18	30	2.1	3	100	182121-MV-C18
Maverick C18	30	4.6	3	300	185131-MV-C18
Maverick C18	50	2.1	3	100	112121-MV-C18
Maverick C18	50	2.1	5	100	112221-MV-C18
Maverick C18	50	4.6	3	100	115121-MV-C18
Maverick C18	75	3	3	100	193121-MV-C18
Maverick C18	75	4.6	3	100	195121-MV-C18
Maverick C18	100	4.6	3	100	125121-MV-C18
Maverick C18	100	4.6	3	300	125131-MV-C18
Maverick C18	100	4.6	5	100	125221-MV-C18
Maverick C18	100	4.6	5	300	125231-MV-C18
Maverick C18	150	2.1	5	100	132221-MV-C18
Maverick C18	150	3	3	100	133121-MV-C18
Maverick C18	150	3	5	300	133231-MV-C18
Maverick C18	150	4.6	3	100	135121-MV-C18
Maverick C18	150	4.6	3	300	135131-MV-C18
Maverick C18	150	4.6	5	100	135221-MV-C18
Maverick C18	150	4.6	5	300	135231-MV-C18
Maverick C18	250	3	5	300	153231-MV-C18
Maverick C18	250	4	5	100	154221-MV-C18
Maverick C18	250	4.6	5	100	155221-MV-C18
Maverick C18	250	4.6	5	300	155231-MV-C18
Maverick C18 Analytical Guard Cartridges (Pkg. 5)	10	3	5	100	500101-MV-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond Z C18 Columns

Vintage Bond Z HPLC Columns exhibit equivalent selectivity and peak symmetry to Agilent Zorbax RX C18 HPLC columns. Other Vintage Bond Z phases are also available including C8 and Phenyl. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage Bond Z	50	4.6	3	115171-VBZ-C18
Vintage Bond Z	100	4.6	3	125171-VBZ-C18
Vintage Bond Z	100	4.6	5	125271-VBZ-C18
Vintage Bond Z	150	4.6	3	135171-VBZ-C18
Vintage Bond Z	150	4.6	5	135271-VBZ-C18
Vintage Bond Z	250	4.6	5	155271-VBZ-C18
Vintage Bond Z Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-VBZ-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

Vintage KSil C18

Vintage KSil C18 is endcapped C18 stationary phase with 22% monomerically bonded carbon, producing a highly retentive column. The dense high carbon coverage forms a hydrophobic shield and prevent underlying silica support interactions with solutes. The Vintage KSil phases are the commercial equivalent of Nouryon Kromasil®. Other Vintage KSil phases are also available including C8 and Phenyl. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage KSil C18	100	4	5	124221-KM-C18
Vintage KSil C18	100	4.6	3.5	1251X1-KM-C18
Vintage KSil C18	100	4.6	5	125221-KM-C18
Vintage KSil C18	125	4	7	104421-KM-C18
Vintage KSil C18	125	4.6	7	105421-KM-C18
Vintage KSil C18	150	4	3.5	1341X1-KM-C18
Vintage KSil C18	150	4	5	134221-KM-C18
Vintage KSil C18	150	4.6	3.5	135121-KM-C18
Vintage KSil C18	150	4.6	5	135221-KM-C18
Vintage KSil C18	250	2.1	3.5	1521X1-KM-C18
Vintage KSil C18	250	4.6	3.5	1551X1-KM-C18
Vintage KSil C18	250	4.6	5	155221-KM-C18
Vintage KSil C18	300	4	7	164421-KM-C18
Vintage KSil C18 Prep	250	10	5	157221-KM-C18
Vintage KSil C18 Ana-lytical Guard Cartridges (Pkg. 5)	10	2	5	500103-KM-C18
Vintage KSil C18 Ana-lytical Guard Cartridges (Pkg. 5)	10	3	5	500101-KM-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage KSil C8

Vintage KSil C8 is a C8 stationary phase with high % bonded carbon. The Vintage KSil C8 phases are the commercial equivalent of Nouryon Kromasil®. Other Vintage KSil C8 phases are also available including C18 and Phenyl. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage KSil C8	100	4.6	3.5	125121-KM-C8
Vintage KSil C8	100	4.6	5	125221-KM-C8
Vintage KSil C8	150	4.6	3.5	1351X1-KM-C8
Vintage KSil C8	150	4.6	5	135221-KM-C8
Vintage KSil C8	250	4.6	10	155321-KM-C8
Vintage KSil C8	250	4.6	5	155221-KM-C8
Vintage KSil C8 Prep	250	50	10	15F321-KM-C8
Vintage KSil C8 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-KM-C8
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Vintage DAS DDS2

Vintage DAS DDS2 is an equivalent selectivity to the GL Sciences Inertsil®HPLC column. Many chromatographers use Vintage DAS DDS2 when looking for an Inertsil® alternative. Vintage DAS DDS2 will offer long column lifetime and excellent reproducibility. Vintage DAS is engineered to the tightest specification and is available in large scale bulk. Vintage DAS DDS2 phases are available in DDS3 (C18), DDS2 (C18), DDS (C18), C8, and phenyl. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage DAS DDS2	150	3	5	133201-DAS-DDS2
Vintage DAS DDS2	150	4	10	134301-DAS-DDS2
Vintage DAS DDS2	150	4.6	5	135201-DAS-DDS2
Vintage DAS DDS2	250	4.6	5	155201-DAS-DDS2
Vintage DAS DDS2 Ana- lytical Guard Cartridges (Pkg. 5)	10	2	5	500103-DAS-DDS2
Vintage DAS DDS2 Ana- lytical Guard Cartridges (Pkg. 5)	10	3	5	500101-DAS-DDS2
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage DAS DDS3

Vintage DAS DDS3 is an equivalent selectivity to the GL Sciences Inertsil®HPLC column. Many chromatographers use Vintage DAS DDS3 when looking for an Inertsil® alternative. Vintage DAS DDS3 will offer long column lifetime and excellent reproducibility. Vintage DAS DDS3 is engineered to the tightest specification and is available in large scale bulk. Vintage DAS DDS3 phases are available in DDS3 (C18), DDS2 (C18), DDS (C18), C8, and phenyl. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage DAS DDS3	50	3	3	113121-DAS-DDS3
Vintage DAS DDS3	50	4.6	5	115221-DAS-DDS3
Vintage DAS DDS3	100	4	3	124121-DAS-DDS3
Vintage DAS DDS3	100	4.6	5	125121-DAS-DDS3
Vintage DAS DDS3	150	4	3	134221-DAS-DDS3
Vintage DAS DDS3	150	4.6	3	135121-DAS-DDS3
Vintage DAS DDS3	150	4.6	5	135221-DAS-DDS3
Vintage DAS DDS3	250	4.6	5	155221-DAS-DDS3
Vintage DAS DDS3 Ana- lytical Guard Cartridges (Pkg. 5)	10	2	5	500103-DAS-DDS3
Vintage DAS DDS3 Ana- lytical Guard Cartridges (Pkg. 5)	10	3	5	500101-DAS-DDS3
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

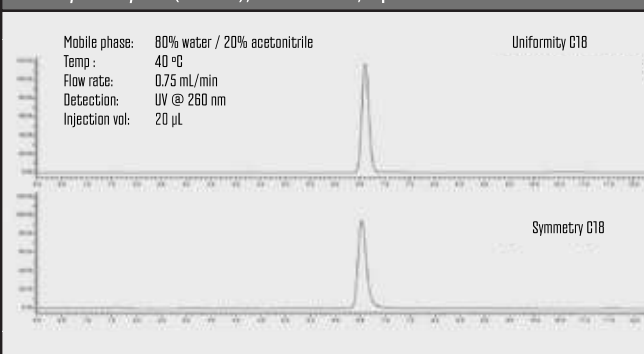
Uniformity C18

Uniformity C18 is an identical selectivity to the Waters Symmetry®C18 HPLC column. Many chromatographers use Uniformity C18 when looking for a Symmetry equivalent. Uniformity C18 will offer long column lifetime, provide excellent reproducibility, and is engineered to the tightest specifications. It is also available in large scale bulk. Other Uniformity phases are also available including C8 and C4. Please enquire for more information.

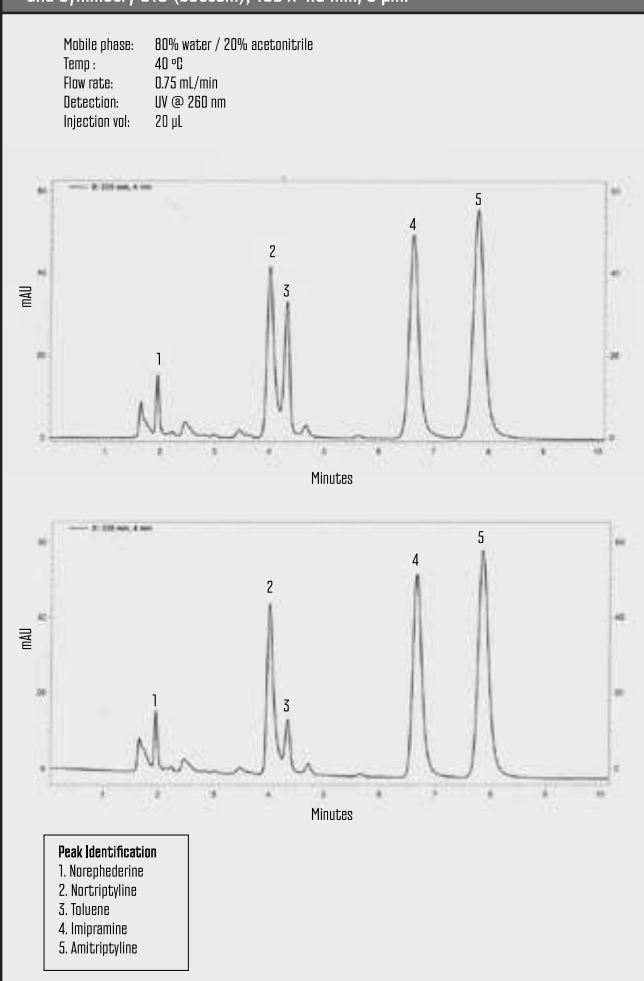
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Uniformity C18	50	2.1	3.5	112121-UN-C18
Uniformity C18	50	4.0	3.5	114121-UN-C18
Uniformity C18	50	4.6	3.5	115121-UN-C18
Uniformity C18	50	4.6	5	115231-UN-C18
Uniformity C18	75	4.0	5	194221-UN-C18
Uniformity C18	75	4.6	3.5	195121-UN-C18
Uniformity C18	75	4.6	5	195221-UN-C18
Uniformity C18	100	3.0	3.5	123121-UN-C18
Uniformity C18	100	4.0	3.5	124121-UN-C18
Uniformity C18	100	4.6	3.5	125121-UN-C18
Uniformity C18	100	4.6	3.5	125131-UN-C18
Uniformity C18	100	4.6	5	125221-UN-C18
Uniformity C18	100	4.6	5	125231-UN-C18
Uniformity C18	150	2.1	3.5	132131-UN-C18
Uniformity C18	150	2.1	5	132221-UN-C18
Uniformity C18	150	3.0	3.5	133121-UN-C18
Uniformity C18	150	3.0	5	133221-UN-C18
Uniformity C18	150	3.9	5	136221-UN-C18
Uniformity C18	150	4.0	5	134221-UN-C18
Uniformity C18	150	4.0	5	134231-UN-C18
Uniformity C18	150	4.6	3.5	135121-UN-C18
Uniformity C18	150	4.6	3.5	135131-UN-C18
Uniformity C18	150	4.6	5	135221-UN-C18
Uniformity C18	150	4.6	5	135231-UN-C18
Uniformity C18	250	2.1	5	152231-UN-C18
Uniformity C18	250	4.6	5	155221-UN-C18
Uniformity C18	250	4.6	5	155231-UN-C18
Uniformity C18 Analytical Guard Cartridges (Pkg. 5)	10	2.0	5	500103-UN-C18
Uniformity C18 Analytical Guard Cartridges (Pkg. 5)	10	3.0	5	500101-UN-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LGA. LGSales@vintagechrom.com

HPLC analysis of fluconazole using Uniformity C18 (top) and Symmetry C18 (bottom), 150 x 4.6 mm, 5 µm.



HPLC analysis of various compounds using Uniformity C18 (top) and Symmetry C18 (bottom), 150 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Uniformity Secure C18

Uniformity Secure is an equivalent to Waters SymmetryShield™ HPLC column. Uniformity Secure C18 utilizes polar embedded technology for superior HPLC analysis. The structure of polar embedded phases inherently incorporates a hydrophilic layer between the silica surface and the reversed-phase layer. The generated hydrophilic layer delivers outstanding peak shape performance and unique selectivity for many separations. Other Uniformity Secure phases are also available including RP8. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Uniformity Secure C18	50	2.1	3.5	112121-UNS-C18
Uniformity Secure C18	50	2.1	5	112221-UNS-C18
Uniformity Secure C18	50	4.6	3.5	115121-UNS-C18
Uniformity Secure C18	50	4.6	5	115221-UNS-C18
Uniformity Secure C18	75	4.6	3.5	195121-UNS-C18
Uniformity Secure C18	100	2.1	3.5	122121-UNS-C18
Uniformity Secure C18	100	4.6	3.5	125121-UNS-C18
Uniformity Secure C18	150	2.1	3.5	132121-UNS-C18
Uniformity Secure C18	150	2.1	5	132221-UNS-C18
Uniformity Secure C18	150	3	3.5	133121-UNS-C18
Uniformity Secure C18	150	3	5	133221-UNS-C18
Uniformity Secure C18	150	3.9	5	13e221-UNS-C18
Uniformity Secure C18	150	4.6	3.5	135121-UNS-C18
Uniformity Secure C18	250	4	5	135221-UNS-C18
Uniformity Secure C18	250	4.6	5	154221-UNS-C18
Uniformity Secure C18	250	4.6	5	155221-UNS-C18
Uniformity Secure C18 Analytical Guard Cartridges (Pkg. 5)	10	2	5	500103-UNS-C18
Uniformity Secure C18 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-UNS-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

HyperLine ODS

The HyperLine line is an equivalent to Thermo Fisher Hypersil™. Excellent efficiencies, peak shape and resolution are obtained for virtually all Hypersil HPLC applications from high quality HyperLine HPLC columns. The HyperLine ODS C18 is a non-endcapped octadecyl material.

In addition to the ODS HyperLine is available as BDS-C18, BDS-C8, endcapped C8, non-endcapped C8, endcapped phenyl, non-endcapped phenyl, silica, TMS, amino, nonendcapped cyano, endcapped cyano, SAX and SCX. Other brand alternatives are also available including HyperLine Gold (Hypersil Gold alternative) and HyperLine HiPurity (Hypersil HiPurity alternative). Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
HyperLine ODS	75	4	5	194291-HPS-ODS
HyperLine ODS	100	2.1	3	122191-HPS-ODS
HyperLine ODS	100	2.1	5	122291-HPS-ODS
HyperLine ODS	100	4	3	124191-HPS-ODS
HyperLine ODS	100	4	5	124291-HPS-ODS
HyperLine ODS	100	4.6	3	125191-HPS-ODS
HyperLine ODS	100	4.6	5	125291-HPS-ODS
HyperLine ODS	120	4	5	104291-HPS-ODS
HyperLine ODS	125	4	5	104291-HPS-ODS
HyperLine ODS	125	4.6	5	105291-HPS-ODS
HyperLine ODS	150	2.1	3	132191-HPS-ODS
HyperLine ODS	150	2.1	5	132291-HPS-ODS
HyperLine ODS	150	3.9	5	13e291-HPS-ODS
HyperLine ODS	150	4	5	134291-HPS-ODS
HyperLine ODS	150	4.6	3	135191-HPS-ODS
HyperLine ODS	150	4.6	5	135291-HPS-ODS
HyperLine ODS	200	4.6	10	145391-HPS-ODS
HyperLine ODS	200	4.6	5	145291-HPS-ODS
HyperLine ODS	250	4	5	154291-HPS-ODS
HyperLine ODS	250	4.6	3	155191-HPS-ODS
HyperLine ODS	250	4.6	5	155291-HPS-ODS
HyperLine ODS	300	3.9	5	16e291-HPS-ODS
HyperLine ODS	300	4	10	164391-HPS-ODS
HyperLine ODS	300	4	5	164291-HPS-ODS
HyperLine ODS Analytical Guard Cartridges (Pkg. 5)	10	2	5	500103-HPS-ODS
HyperLine ODS Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-HPS-ODS
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

HyperLine ODS2

The HyperLine ODS2 line is an equivalent to Thermo Fisher Hypersil. The HyperLine ODS2 is an endcapped octadecyl material. Excellent efficiencies, peak shape and resolution are obtained for virtually all Hypersil HPLC applications from high quality HyperLine HPLC columns. Range of particle sizes offers versatility for capillary and LC/MS to prep and process scale applications.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
HyperLine ODS2	50	4.6	5	115291-HPS-ODS2
HyperLine ODS2	100	4.6	5	125291-HPS-ODS2
HyperLine ODS2	150	4.6	5	135271-HPS-ODS2
HyperLine ODS2	150	4.6	5	135271-HPS-ODS2
HyperLine ODS2	250	2.1	5	152291-HPS-ODS2
HyperLine ODS2	250	4.6	5	155171-HPS-ODS2
HyperLine ODS2	250	4.6	5	155271-HPS-ODS2
HyperLine ODS2	250	4.6	5	155271-HPS-ODS2
HyperLine ODS2 Analytical Guard Cartridges (Pkg. 5)	10	2	5	500103-HPS-ODS2
HyperLine ODS2 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-HPS-ODS2
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

HyperLine BDS

The HyperLine line is an alternative to Thermo Fisher Hypersil. The HyperLine BDS C18 is a base deactivated C18 material. Excellent efficiencies, peak shape and resolution are obtained for virtually all Hypersil HPLC applications from high quality HyperLine HPLC columns.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
HyperLine BDS	50	2.1	3	112191-HPS-BDSC18
HyperLine BDS	50	4.6	3	115191-HPS-BDSC18
HyperLine BDS	100	4	3	124191-HPS-BDSC18
HyperLine BDS	100	4.6	3	125191-HPS-BDSC18
HyperLine BDS	100	4.6	5	125291-HPS-BDSC18
HyperLine BDS	150	2.1	3	132191-HPS-BDSC18
HyperLine BDS	150	4.6	3	135191-HPS-BDSC18
HyperLine BDS	150	4.6	5	135291-HPS-BDSC18
HyperLine BDS	250	4	5	154291-HPS-BDSC18
HyperLine BDS	250	4.6	3	155191-HPS-BDSC18
HyperLine BDS	250	4.6	5	155291-HPS-BDSC18
HyperLine BDS	10	2	5	500103-HPS-BDSC18
HyperLine BDS	10	3	5	500101-HPS-BDSC18
HyperLine BDS	-	-	-	-
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

MiniPak C18

MiniPak columns closely match the performance of Waters μ Bondapak columns with equivalent selectivity and peak symmetry. These materials are available in both the standard μ Bondapak 10 μ m particle size as well as a 5 μ m size for both shorter run times and higher efficiencies. Most methodologies on μ Bondapak HPLC columns can be transferred to these products without modification, including USP applications. Other MiniPak phases are also available including C8, cyano, amino (NH₂), phenyl and silica. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Part Number
MiniPak C18	100	8	5	129291-MNPK-C18
MiniPak C18	150	3.9	10	134391-MNPK-C18
MiniPak C18	150	3.9	5	13e291-MNPK-C18
MiniPak C18	150	4	5	134291-MNPK-C18
MiniPak C18	150	4.6	10	135391-MNPK-C18
MiniPak C18	150	4.6	5	135291-MNPK-C18
MiniPak C18	250	4.6	10	155391-MNPK-C18
MiniPak C18	250	4.6	5	155291-MNPK-C18
MiniPak C18	300	3.9	10	16e391-MNPK-C18
MiniPak C18	300	3.9	5	16e291-MNPK-C18
MiniPak C18	300	4	10	164391-MNPK-C18
MiniPak C18	300	4	5	164291-MNPK-C18
MiniPak C18	300	4.6	10	165391-MNPK-C18
MiniPak C18	300	4.6	5	
MiniPak C18	300	4.6	10	
MiniPak C18 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-MNPK-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Mercury dC18

The Mercury line is an alternative to Waters Atlantis®. Mercury dC18 is an alternative to the Waters Atlantis® dC18 material for reverse phase chromatography. In many cases Mercury has shown better retention and a longer column lifetime than the Atlantis. Enhanced polar compounds will be retained with complete compatibility with aqueous mobile phases. Excellent for LC/MS and gradient research. Other Mercury phases are also available including T3 and HILIC Silica. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (μ m)	Part Number
Mercury dC18	50	2.1	3	112121-MY-C18
Mercury dC18	75	4.6	5	195221-MY-C18
Mercury dC18	100	2.1	3	122121-MY-C18
Mercury dC18	100	4.6	5	125221-MY-C18
Mercury dC18	150	2.1	3	132121-MY-C18
Mercury dC18	150	2.1	5	132221-MY-C18
Mercury dC18	150	4.6	3	135121-MY-C18
Mercury dC18	150	4.6	5	135221-MY-C18
Mercury dC18	250	4	5	154221-MY-C18
Mercury dC18	250	4.6	5	155221-MY-C18
Mercury dC18				
Mercury dC18 Analytical Guard Cartridges (Pkg. 5)	10	2	5	500103-MY-C18
Mercury dC18 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-MY-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage PSep ODS3

Vintage PSep columns closely match the selectivity and performance of GE Whatman Partisil® columns. Most methodologies on Partisil HPLC columns can be transferred to Vintage PSep products without modification, including USP applications. Vintage PSep ODS3 closely matches the selectivity and performance of Partisil ODS3 columns. Other Vintage PSep phases are also available including ODS, ODS2, C8, PAC, SAX and silica. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Par- ticle Size (μ m)	Part Number
Vintage PSep ODS3	100	4.6	5	125271-PSP-ODS3
Vintage PSep ODS3	150	4.6	5	135271-PSP-ODS3
Vintage PSep ODS3	250	4.6	10	155371-PSP-ODS3
Vintage PSep ODS3	250	4.6	5	155271-PSP-ODS3
Vintage PSep ODS3 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-PSP-ODS3
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

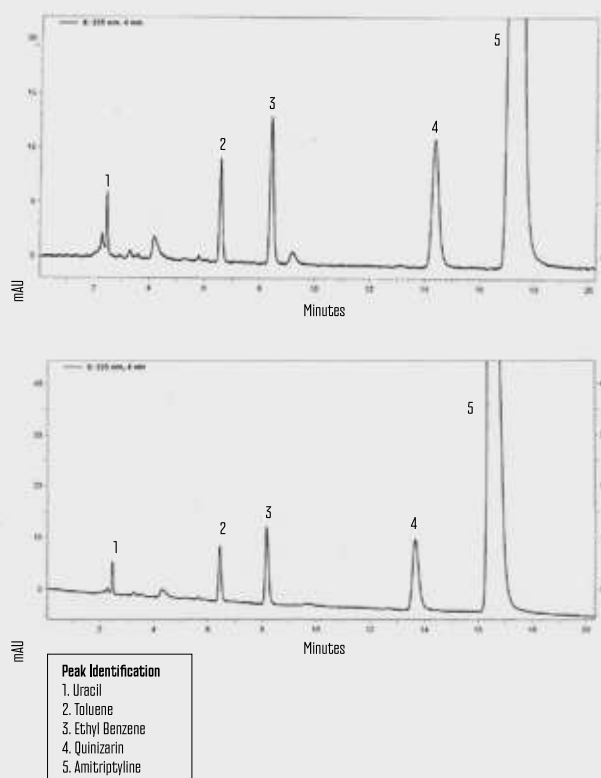
Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Nappa C18(2)

The Nappa line is an equivalent to Phenomenex Luna™. Excellent efficiencies, peak shape and resolution are obtained for virtually all Luna™ HPLC applications from high quality Nappa HPLC columns. A range of particle sizes offers versatility for capillary and LC/MS to prep and process scale applications. Nappa C18(2), the most popular phase, is equivalent to Luna C18(2). Available in 3µm and 5µm particle sizes, with bulk and preparative material available. Other Nappa phases are also available including C18, C5, C8, C8(2), Cyano, HILIC, NH2 (amino), PFP(2), Phenyl-Hexyl and Silica(2). Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Nappa C18(2)	30	2.1	3	182121-NAPP-C18(2)
Nappa C18(2)	50	2.1	10	112321-NAPP-C18(2)
Nappa C18(2)	50	2.1	3	112121-NAPP-C18(2)
Nappa C18(2)	50	2.1	5	112221-NAPP-C18(2)
Nappa C18(2)	50	3	3	113121-NAPP-C18(2)
Nappa C18(2)	50	3	5	113221-NAPP-C18(2)
Nappa C18(2)	50	4.6	3	115121-NAPP-C18(2)
Nappa C18(2)	50	4.6	5	115221-NAPP-C18(2)
Nappa C18(2)	75	4	3	194121-NAPP-C18(2)
Nappa C18(2)	75	4	5	194221-NAPP-C18(2)
Nappa C18(2)	75	4.6	3	195121-NAPP-C18(2)
Nappa C18(2)	75	4.6	5	195221-NAPP-C18(2)
Nappa C18(2)	100	2.1	3	122121-NAPP-C18(2)
Nappa C18(2)	100	2.1	5	122221-NAPP-C18(2)
Nappa C18(2)	100	4.6	3	125121-NAPP-C18(2)
Nappa C18(2)	100	4.6	5	125221-NAPP-C18(2)
Nappa C18(2)	150	2.1	3	132121-NAPP-C18(2)
Nappa C18(2)	150	2.1	5	132221-NAPP-C18(2)
Nappa C18(2)	150	3	3	133221-NAPP-C18(2)
Nappa C18(2)	150	4	10	134321-NAPP-C18(2)
Nappa C18(2)	150	4	3	134121-NAPP-C18(2)
Nappa C18(2)	150	4	5	134221-NAPP-C18(2)
Nappa C18(2)	150	4.6	15	135821-NAPP-C18(2)
Nappa C18(2)	150	4.6	3	135121-NAPP-C18(2)
Nappa C18(2)	150	4.6	5	135221-NAPP-C18(2)
Nappa C18(2)	200	4.6	5	145221-NAPP-C18(2)
Nappa C18(2)	250	2.1	10	152321-NAPP-C18(2)
Nappa C18(2)	250	2.1	5	152221-NAPP-C18(2)
Nappa C18(2)	250	4	10	154321-NAPP-C18(2)
Nappa C18(2)	250	4	5	154221-NAPP-C18(2)
Nappa C18(2)	250	4.6	10	155321-NAPP-C18(2)

HPLC analysis of a test mix using Nappa C18(2) (top) and Luna C18(2) (bottom), 250 x 4.6 mm, 5 µm.



Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Nappa C18(2)	250	4.6	15	155821-NAPP-C18(2)
Nappa C18(2)	250	4.6	3	155121-NAPP-C18(2)
Nappa C18(2)	250	4.6	5	155221-NAPP-C18(2)
Nappa C18(2)	300	3.9	10	16e321-NAPP-C18(2)
Nappa C18(2)	300	4	10	164321-NAPP-C18(2)
Nappa C18(2)	300	4	15	164821-NAPP-C18(2)
Nappa C18(2)	300	4.6	15	165821-NAPP-C18(2)
Nappa C18(2) Prep	150	20	5	138221-NAPP-C18(2)
Nappa C18(2) Prep	250	10	10	157321-NAPP-C18(2)
Nappa C18(2) Prep	250	10	5	157221-NAPP-C18(2)
Nappa C18(2) Prep	250	20	5	158221-NAPP-C18(2)
Nappa C18(2) Analytical Guard Cartridges (Pkg. 5)	10	2	5	500103-NAPP-C18(2)
Nappa C18(2) Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-NAPP-C18(2)
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

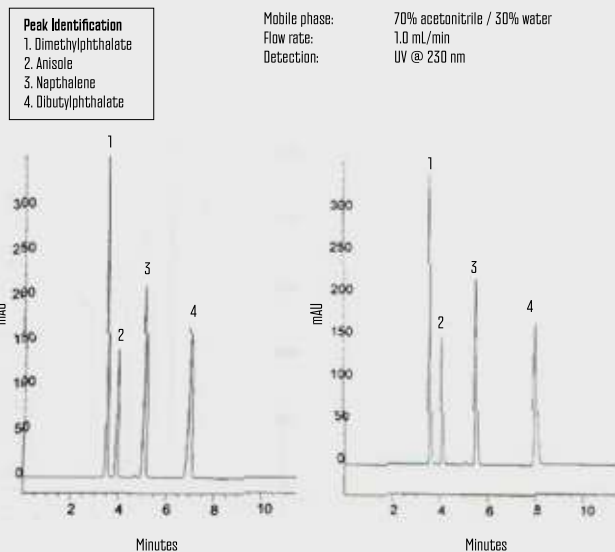
Vintage Bond UL ODS1

The Vintage Bond UL line is an equivalent to Waters Spherisorb®. The Vintage Bond UL ODS1 is an equivalent to Waters Spherisorb® ODS1. Excellent efficiencies, peak shape and resolution are obtained for virtually all Waters Spherisorb® HPLC applications from high quality Vintage Bond UL HPLC columns. Range of particle sizes offers versatility for capillary and LC/MS to prep and process scale applications. Other Vintage Bond UL phases are also available including C1, C6, C8, cyano, NH2, ODS2, ODSB, Phenyl, SAX and Silica. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage Bond UL ODS1	100	4.6	5	125271-ODS1UL
Vintage Bond UL ODS1	125	4	3	104171-ODS1UL
Vintage Bond UL ODS1	125	4.6	5	105271-ODS1UL
Vintage Bond UL ODS1	150	4	5	134271-ODS1UL
Vintage Bond UL ODS1	150	4.6	3	135171-ODS1UL
Vintage Bond UL ODS1	150	4.6	5	135271-ODS1UL
Vintage Bond UL ODS1	200	4.6	10	145371-ODS1UL
Vintage Bond UL ODS1	250	3	4	153871-ODS1UL
Vintage Bond UL ODS1	250	4	10	154371-ODS1UL
Vintage Bond UL ODS1	250	4	5	154271-ODS1UL
Vintage Bond UL ODS1	250	4.6	5	155271-ODS1UL
Vintage Bond UL ODS1	250	4.6	5	155271-ODS1UL
Vintage Bond UL ODS1	300	4	5	164271-ODS1UL
Vintage Bond UL ODS1	10	2	5	500103-ODS1UL
Vintage Bond UL ODS1	10	3	5	500101-ODS1UL
Vintage Bond UL ODS1 Analytical Guard Car- tridges (Pkg. 5)	10	2	5	500103-ODS1UL
Vintage Bond UL ODS1 Analytical Guard Car- tridges (Pkg. 5)	10	3	5	500101-ODS1UL
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

HPLC analysis of phthalates and other organics using Vintage Bond UL ODS1 (left) and Vintage Bond UL ODS1(right), 250 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

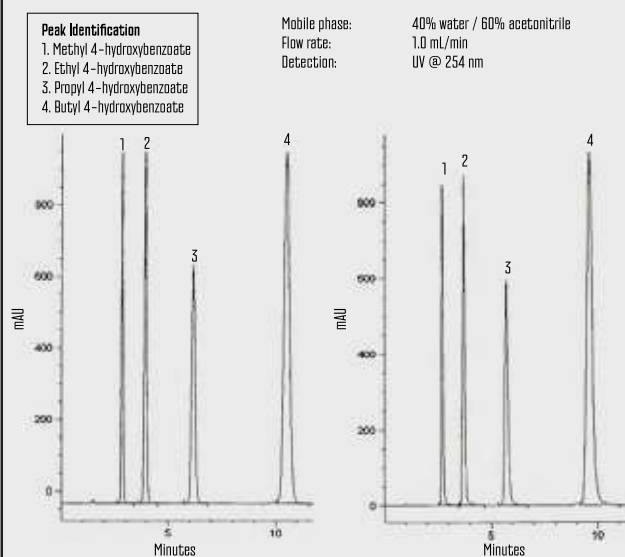
Vintage Bond UL ODS2

The Vintage Bond UL line is an equivalent to Waters Spherisorb®. The most popular is the ODS2; Vintage Chrom offers the Vintage Bond UL ODS2 column with identical selectivity in 3, 5 or 10 micron particles. Other Vintage Bond UL phases are also available including C1, C6, C8, cyano, NH2, ODS1, ODSB, Phenyl, SAX and Silica. Please enquire for more information.

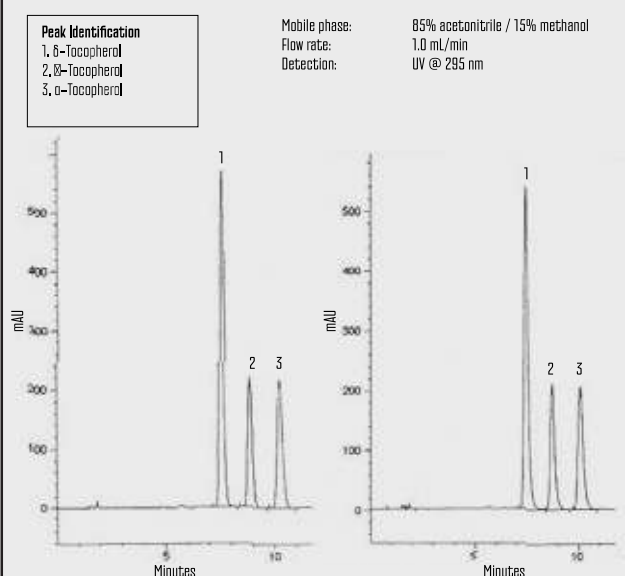
Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage Bond UL ODS2	30	4.6	5	185271-ODS2UL
Vintage Bond UL ODS2	50	4.6	3	115171-ODS2UL
Vintage Bond UL ODS2	50	4.6	5	115271-ODS2UL
Vintage Bond UL ODS2	100	2.1	3	122171-ODS2UL
Vintage Bond UL ODS2	100	4	10	124371-ODS2UL
Vintage Bond UL ODS2	100	4.6	3	125171-ODS2UL
Vintage Bond UL ODS2	100	4.6	5	125271-ODS2UL
Vintage Bond UL ODS2	120	4.6	3	105171-ODS2UL
Vintage Bond UL ODS2	125	3	3	103171-ODS2UL
Vintage Bond UL ODS2	125	4	5	104271-ODS2UL
Vintage Bond UL ODS2	125	4.6	5	105171-ODS2UL
Vintage Bond UL ODS2	150	4	3	134171-ODS2UL
Vintage Bond UL ODS2	150	4	5	134271-ODS2UL
Vintage Bond UL ODS2	150	4.6	3	135171-ODS2UL
Vintage Bond UL ODS2	150	4.6	5	135271-ODS2UL
Vintage Bond UL ODS2	250	4	5	154271-ODS2UL
Vintage Bond UL ODS2	250	4.6	10	155371-ODS2UL
Vintage Bond UL ODS2	250	4.6	3	155171-ODS2UL
Vintage Bond UL ODS2	250	4.6	5	155271-ODS2UL
Vintage Bond UL ODS2	300	3.9	5	16e271-ODS2UL
Vintage Bond UL ODS2 Analytical Guard Cartridges (Pkg. 5)	10	3	5	500101-ODS2UL
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

HPLC analysis of 4-hydroxybenzoates using Vintage Bond UL ODS2 (left) and Vintage Bond UL ODS2(right), 150 x 4.6 mm, 5 µm.



HPLC analysis of tocopherols using Vintage Bond UL ODS2 (left) and Vintage Bond UL ODS2 (right), 150 x 4.6 mm, 5 µm.



Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage AR0

Vintage FSep

Equivalent

Vintage Star C18

The Vintage Star line shows equivalent selectivity to the Waters SunFire™ and has a long column lifetime and excellent reproducibility. The Vintage Star C18 provides equivalent selectivity to the SunFire C18. Vintage Star columns provide symmetrical peaks for improved resolution and quantization of acidic neutral and basic compounds a low and intermediate pH range. It is available in many particle sizes as well as preparative bulk. Other Vintage Star phases are also available including C8. Please enquire for more information.

Phase	Length (mm)	ID (mm)	Particle Size (µm)	Part Number
Vintage Star C18	50	2.1	3.5	112121-ST-C18
Vintage Star C18	50	2.1	5	112221-ST-C18
Vintage Star C18	50	3	3.5	113221-ST-C18
Vintage Star C18	50	4.6	3.5	115121-ST-C18
Vintage Star C18	75	4.6	3.5	195121-ST-C18
Vintage Star C18	100	2	2.5	522H21-ST-C18
Vintage Star C18	100	2.1	3.5	122121-ST-C18
Vintage Star C18	100	4.6	3.5	125121-ST-C18
Vintage Star C18	100	4.6	5	125221-ST-C18
Vintage Star C18	150	2.1	3.5	132121-ST-C18
Vintage Star C18	150	3	3.5	133121-ST-C18
Vintage Star C18	150	4	3.5	134121-ST-C18
Vintage Star C18	150	4	5	134221-ST-C18
Vintage Star C18	150	4.6	3.5	135121-ST-C18
Vintage Star C18	150	4.6	5	135221-ST-C18
Vintage Star C18	250	4.6	5	155221-ST-C18
Vintage Star C18 Prep	150	20	3.5	138121-ST-C18
Vintage Star C18 Prep	150	30	5	13N221-ST-C18
Vintage Star C18Prep	250	10	5	157221-ST-C18
Vintage Star C18 Prep	250	20	5	158221-ST-C18
Vintage Star C18 Ana- lytical Guard Cartridges (Pkg. 5)	10	3	5	500101-ST-C18
Analytical Guard Cartridge Holder with integrated coupler	-	-	-	500100

Other phases, column dimensions, particle sizes, and guard cartridges are available. Please enquire for more details at LCSales@vintagechrom.com

Vintage Bond

Vintage BIO

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent

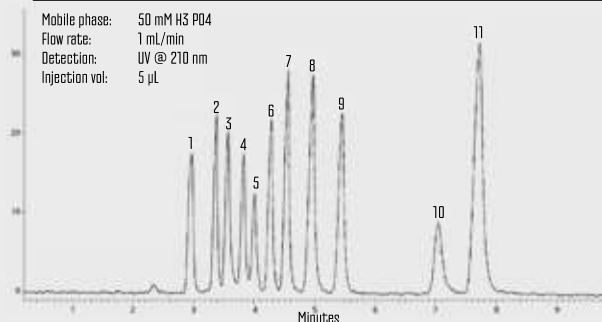


Food LC Applications

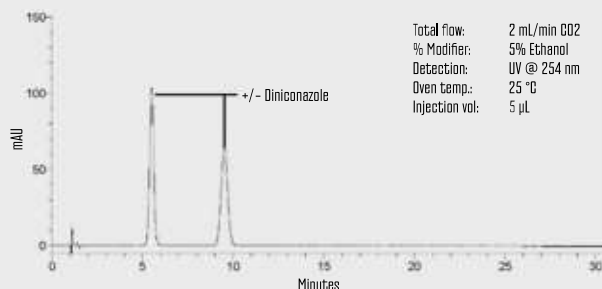
HPLC analysis of low molecular weight polar organic acids using Vintage Bond Polar, 250 x 4.6 mm, 5 µm.

Peak Identification			
1. Glucuronic acid	500 µg/mL	6. Lactic acid	666 µg/mL
2. Tartaric acid	167 µg/mL	7. Acetic acid	656 µg/mL
3. Formic acid	333 µg/mL	8. Citric acid	420 µg/mL
4. Malic acid	250 µg/mL	9. Succinic acid	833 µg/mL
5. Shikimic acid	62 µg/mL	10. Fumaric acid	3 µg/mL
		11. Propionic acid	1600 µg/mL

Mobile phase: 50 mM H₃PO₄
Flow rate: 1 mL/min
Detection: UV @ 210 nm
Injection vol: 5 µL

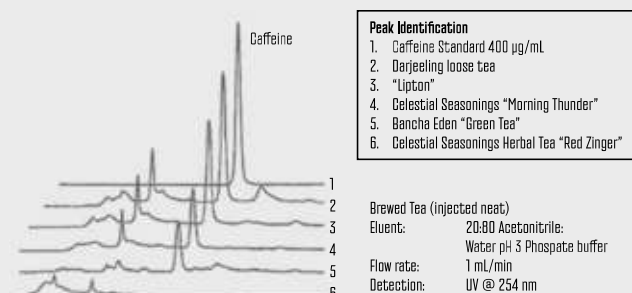


SFC analysis of diniconazole pesticide using Vintage Chiral S with 5% ethanol, 150 mm x 4.6 mm, 5 µm.



Total flow: 2 mL/min CO₂
% Modifier: 5% Ethanol
Detection: UV @ 254 nm
Oven temp.: 25 °C
Injection vol: 5 µL

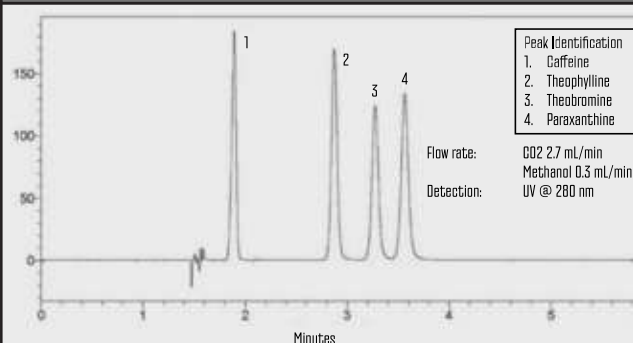
HPLC analysis of brewed teas using Vintage Bond Aqua, 150 mm x 4.6 mm, 5 µm.



Peak Identification	
1. Caffeine Standard 400 µg/mL	
2. Darjeeling loose tea	
3. "Lipton"	
4. Celestial Seasonings "Morning Thunder"	
5. Banacha Eden "Green Tea"	
6. Celestial Seasonings Herbal Tea "Red Zinger"	

Brewed Tea (injected neat)
Eluent: 20:80 Acetonitrile:
Water pH 3 Phosphate buffer
Flow rate: 1 mL/min
Detection: UV @ 254 nm

SFC analysis of caffeine analogue mixture using Vintage SFC Basic, 250 x 4.6 mm, 5 µm.



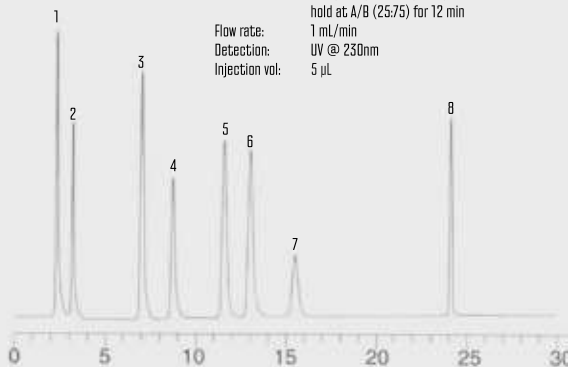
Peak Identification	
1. Caffeine	
2. Theophylline	
3. Theobromine	
4. Paraxanthine	

Flow rate: CO₂ 2.7 mL/min
Methanol 0.3 mL/min
Detection: UV @ 280 nm

HPLC analysis of food additives using Vintage ARO Phenyl Hexyl, 150 x 4.6 mm, 5 µm.

Peak Identification	
1. Saccharin	5. Dehydroacetic acid
2. p-Hydroxybenzoic acid	6. p-Toluic acid
3. Sorbic acid	7. p-Hydroxybenzoic acid ethyl ester
4. p-Hydroxybenzoic acid methyl ester	8. n-Propyl p-hydroxybenzoate

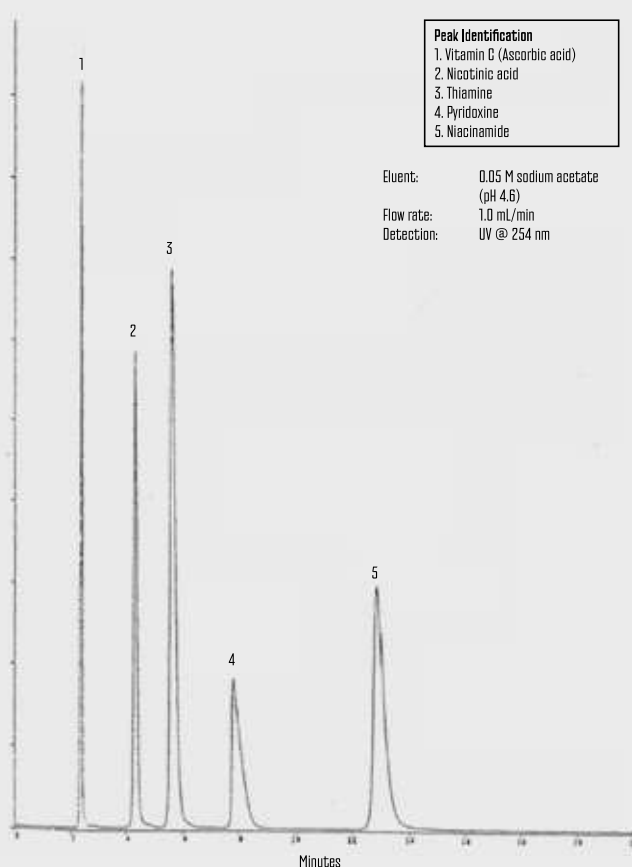
Mobile phase: A: 50 mM KH₂PO₄ + 0.1% H₃PO₄
B: Acetonitrile
Gradient: A/B (75:25) to A/B (25:75) in 18 min,
hold at A/B (25:75) for 12 min
Flow rate: 1 mL/min
Detection: UV @ 230 nm
Injection vol: 5 µL



HPLC analysis of water-soluble vitamins using Vintage Bond Aqua, 150 mm x 4.6 mm, 5 µm.

Peak Identification	
1. Vitamin C (Ascorbic acid)	
2. Nicotinic acid	
3. Thiamine	
4. Pyridoxine	
5. Niacinamide	

Eluent: 0.05 M sodium acetate
(pH 4.6)
Flow rate: 1.0 mL/min
Detection: UV @ 254 nm



Vintage Bond

Vintage B10

Vintage SEC

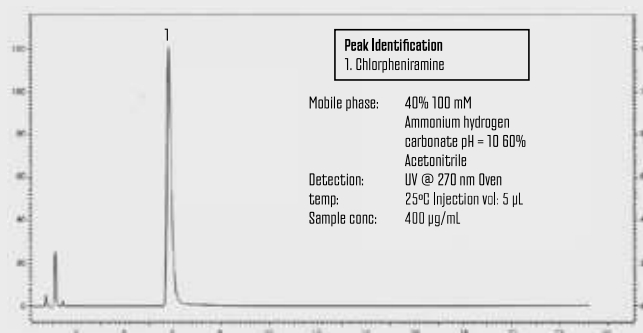
Vintage SFC

Vintage ARO

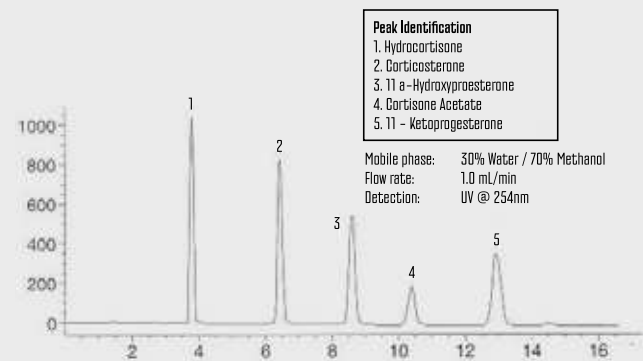
Vintage FSep

Equivalent

HPLC analysis of chlorpheniramine antihistamine at pH 10 using Vintage Bond C18, 150 x 4.6 mm, 5 µm.

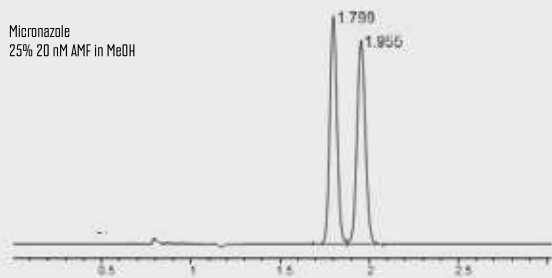


HPLC analysis of steroids using Vintage Bond HILIC RP, 250 x 4.6 mm, 5 µm.

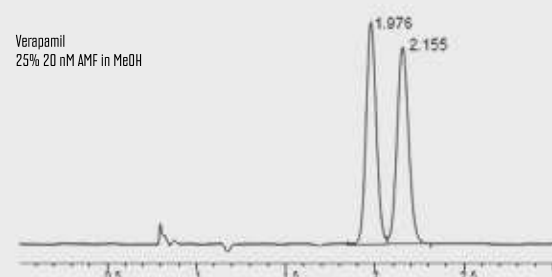


SFC analysis of miconazole and verapamil using Vintage Chiral O F4 T3, 250 mm x 4.6 mm, 5 µm.

Miconazole
25% 20 nM AMF in MeOH



Verapamil
25% 20 nM AMF in MeOH



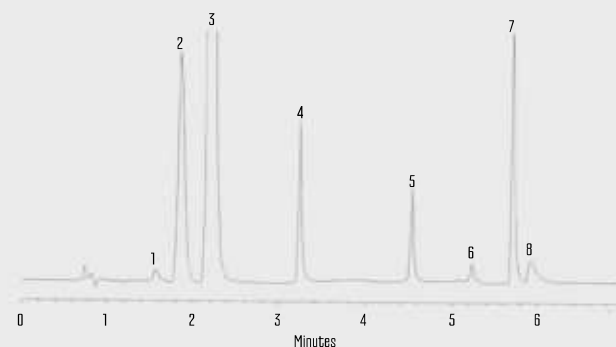
Reference: Resurgence in Fluorinated Chiral Polysaccharide Phases for Supercritical Fluid Chromatography, Chromatography Today, August/September 2016.

HPLC analysis of polar pharmaceutical compounds using Vintage ARO Phenyl Hexyl, 50 x 4.6 mm, 3 µm.

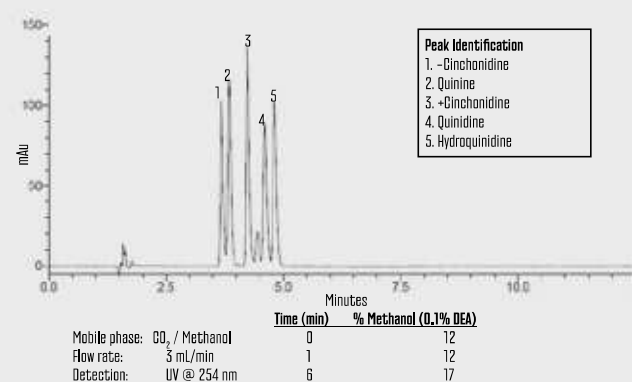
Peak Identification

1. P-Aminophenol
2. Benzoic acid
3. Acetaminophen
4. Pseudoephedrine
5. Butyl paraben
6. Chlorpheniramine
7. Diphenhydramine
8. Dextromethorpha

Mobile phase: A: Acetonitrile
B: Methanol/20 mM KH₂PO₄ (80:20) pH 9.0
A/B (0:100) to A/B (80:20) in 5 min 1.3
Flow rate: mL/min
Detection: UV @ 214 nm
Injection vol: 5 µL

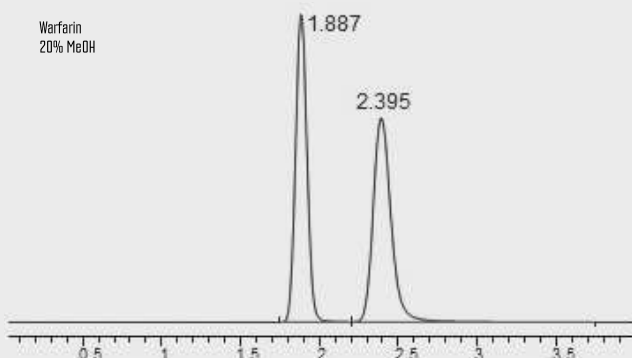


SFC analysis of structurally similar quinine derivatives using Vintage SFC Naphthyl, 150 x 4.6 mm, 3 µm.



SFC analysis of warfarin and using Vintage Chiral O-FL2, 250 mm x 4.6 mm, 5 µm.

Warfarin
20% MeOH



Reference: Resurgence in Fluorinated Chiral Polysaccharide Phases for Supercritical Fluid Chromatography, Chromatography Today, August/September 2016.

Vintage Bond

Vintage B10

Vintage SEC

Vintage SFC

Vintage ARO

Vintage FSep

Equivalent