

ULTIMATE HPLC/UHPLC COMBO

Kinetex + Luna Omega

**Gain Incredible Performance,
Versatile Selectivities and
Upgrade Throughput**



NEW



**Luna Omega 3 μ m Polar C18
Luna Omega 3 μ m PS C18**



**Kinetex 2.6 μ m Polar C18
Kinetex 5 μ m F5**

 **phenomenex**[®]
...breaking with traditionSM



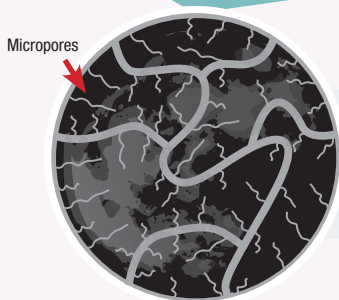
Luna Omega

Cutting Edge Fully Porous Silica Particle

Luna® is one of the most recognized HPLC brands on the market, delivering high efficiency, ruggedness, reproducibility, and dependability for a wide range of analyses. The new Luna Omega builds upon this legacy with an innovative yet rugged silica particle architecture, designed and manufactured by Phenomenex based on more than 20 years of applied knowledge, invention, and customer experience.

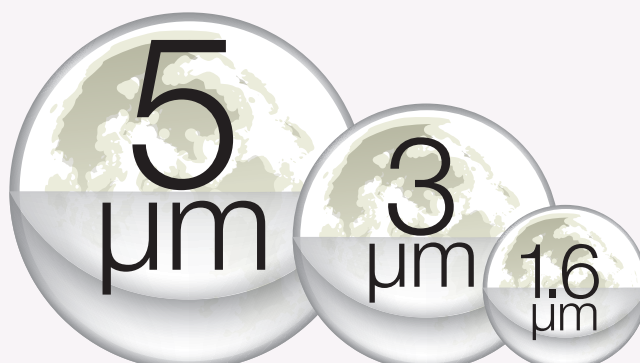
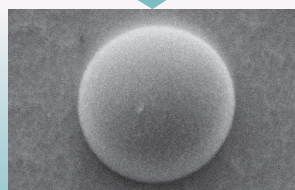
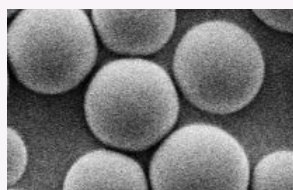
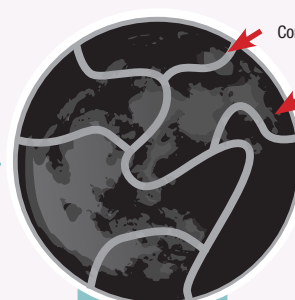
Novel Design and Manufacturing Process

Within the novel manufacturing process of Luna Omega silica, we implement a proprietary processing technique to gain greater particle inertness, a stronger particle morphology, and more consistent porosity.



Thermal Modified Pore Structure

Most importantly, through our proprietary process, we eliminate micropores, further improving column efficiency, inertness, and reproducibility.



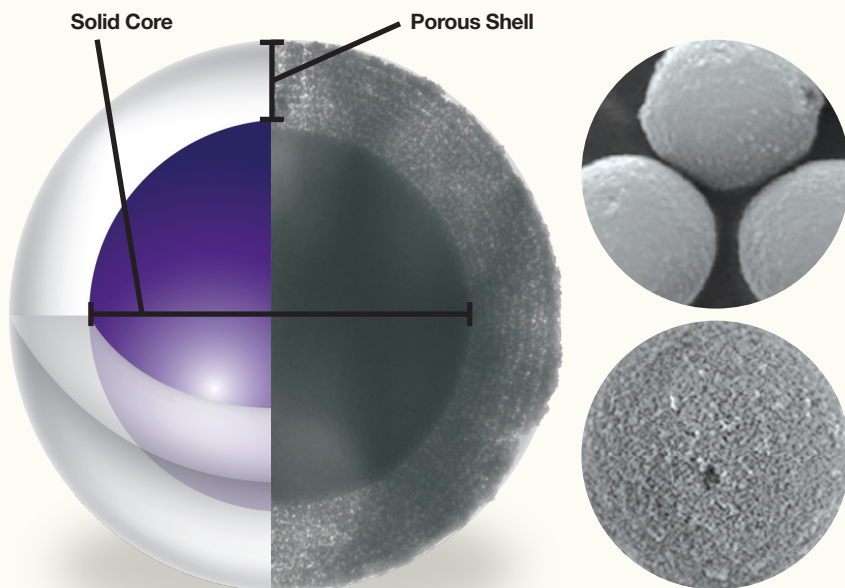
Kinetex

The Chosen Core-Shell Brand

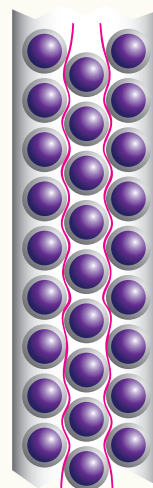
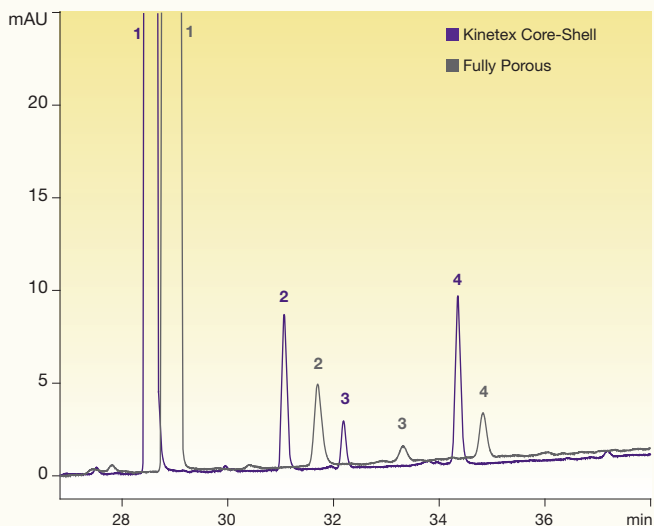
Kinetex® Core-Shell Technology delivers dramatic improvements in efficiency over conventional fully porous media which can be leveraged to increase resolution, greatly improve productivity, reduce solvent consumption, and decrease costs. Whether you are running HPLC or UHPLC methods, the Kinetex core-shell family can deliver shockingly improved performance over the current column you are using.

Finely Tuned, Unique Core-Shell Manufacturing Process

Phenomenex designs, manufactures, and sells its very own silica and organo-silica core-shell particles. Using silica sol-gel processing techniques that incorporate nano-structuring technology, a durable, homogeneous porous shell is grown on a solid silica core to create a core-shell particle. The combination of a consistent, solid high density core along with proprietary column packing technologies ensures optimum bed structure and high column performance.



You can unleash the power of Kinetex Core-Shell Technology columns to achieve faster and better results just not possible on conventional fully porous materials. No matter what type of system you have or type of analysis you are performing, there is a Kinetex solution for you.

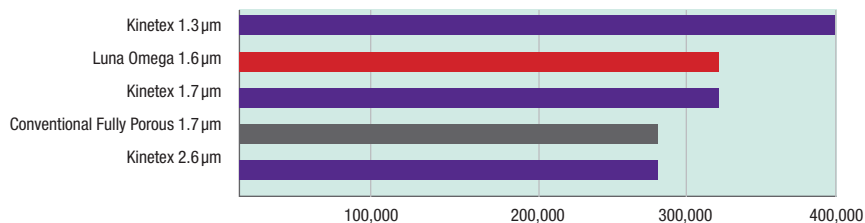


Gain Incredible Performance With Kinetex and Luna Omega

The undeniably high efficiency levels found in each Luna® Omega and Kinetex® column provide you with the potential of huge gains in method performance. While traditional silica and hybrid fully porous particles may claim high performance, when compared to Luna Omega or Kinetex, they fall short and prevent HPLC/UHPLC scientists from reaching their goals.

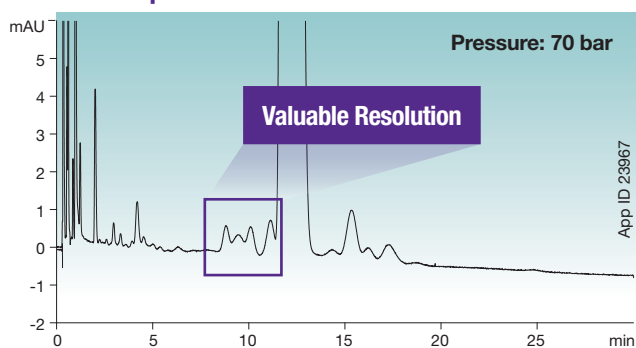
UHPLC

Efficiency Levels (plates/m)

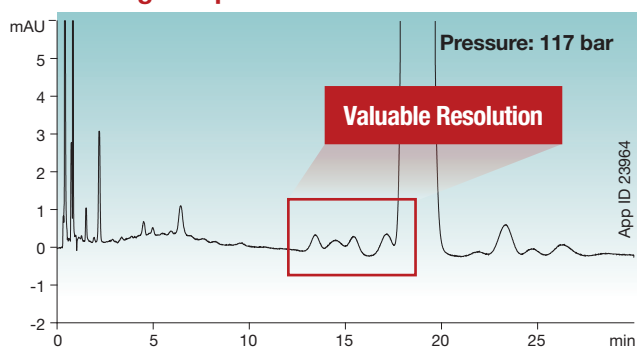


UHPLC Performance – Cyclosporine Impurity Profile

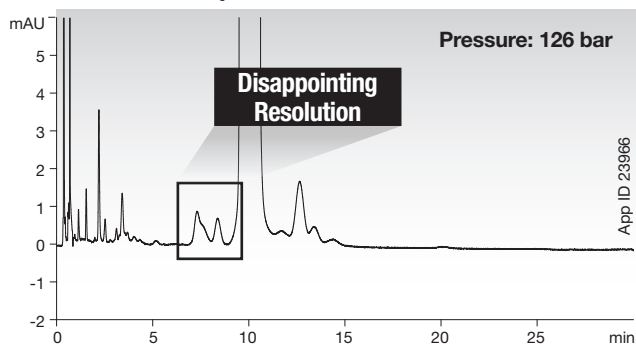
Kinetex 2.6 µm Polar C18



Luna Omega 1.6 µm Polar C18



Conventional 1.7 µm C18



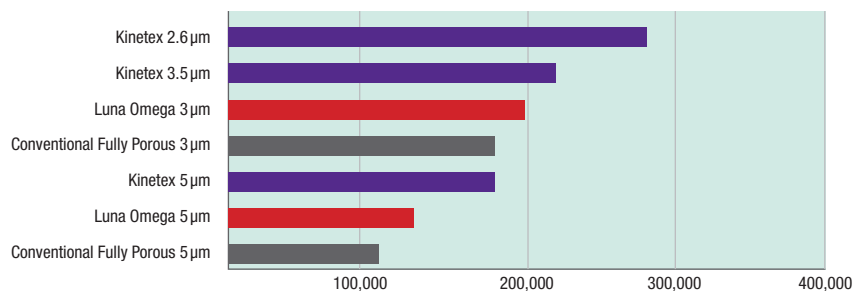
Conditions for all columns same except where noted:

- Columns:** Kinetex 2.6 µm Polar C18
Luna Omega 1.6 µm Polar C18
Conventional Fully Porous 1.7 µm C18
- Dimensions:** 50 x 2.1 mm
- Mobile Phase:** Acetonitrile/Tert-butyl methyl ether/Water/Phosphoric acid (430:50:520:1)
- Flow Rate:** 0.30 mL/min
- Temperature:** 80 °C
- Detection:** UV @ 210 nm
- Sample:** Cyclosporine

Comparative separations may not be representative of all applications.

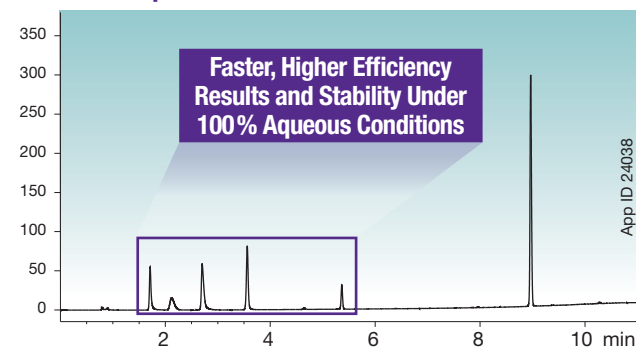
HPLC

Efficiency Levels (plates/m)

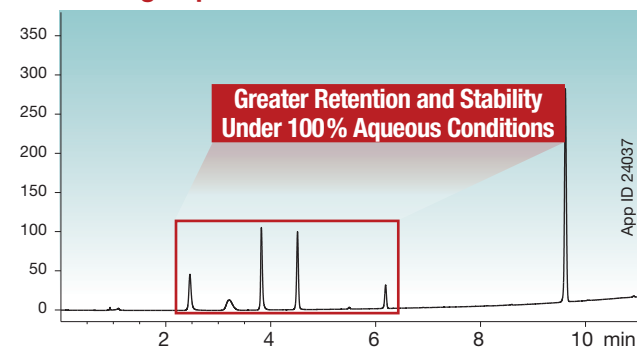


HPLC Performance – Water Soluble Vitamins

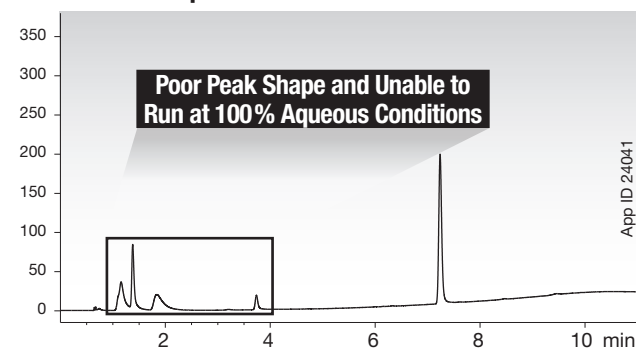
Kinetex 2.6 µm Polar C18



Luna Omega 3 µm Polar C18



Core-Shell 2.7 µm C18



Conditions for all columns same except where noted:

- Columns:** Kinetex 2.6 µm Polar C18
Luna Omega 3 µm Polar C18
Core-Shell 2.7 µm C18
- Dimensions:** 100 x 4.6 mm
- Mobile Phase:** A: 20 mM Potassium Phosphate
B: Methanol
- Gradient:**

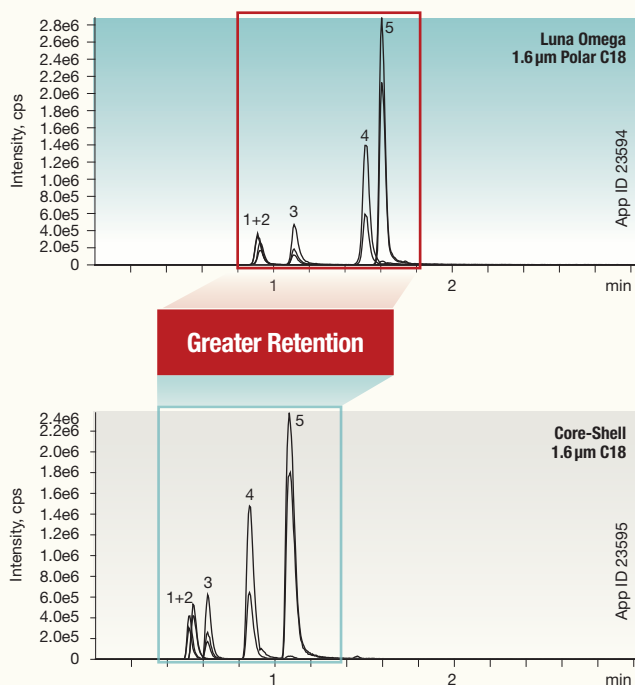
Time (min)	% B
0	0
1	0
10	60
- Flow Rate:** 1.2 mL/min
- Temperature:** Ambient
- Detection:** UV @ 210 nm
- Sample:**
 1. Thiamine
 2. Nicotinamide
 3. Pyridoxal
 4. Pyridoxine
 5. Pantothenic Acid
 6. Riboflavin

Gradient for conventional core-shell C18 column starts at 2% B

Gain Retention and Resolution With Enhanced Polar Phases

The polar modified functionalities of the Polar C18 and PS C18 stationary phases provide greater polar compound retention and resulting improvement in resolution values. Additionally, the advanced proprietary bonding technology used for both the Polar C18 and PS C18 ensures 100% aqueous stability as well as balanced retention for non-polar compounds.

Nicotine and Metabolites



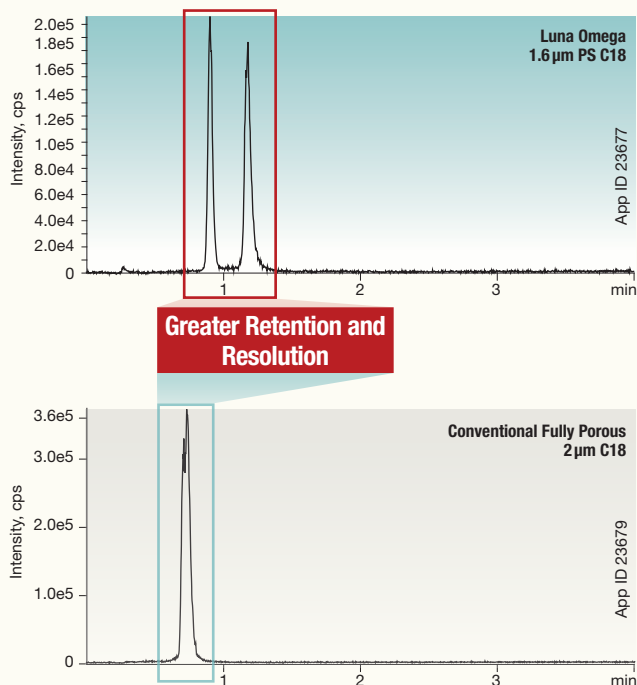
Conditions for all columns:

Columns: Luna Omega 1.6 μm Polar C18
Core-Shell 1.6 μm C18
Dimension: 50 x 2.1 mm
Mobile Phase: A: 10 mM Ammonium Formate with 0.1 % Formic Acid
B: Acetonitrile with 0.1 % Formic Acid
Gradient:

Time (min)	% B
0	2
3	90
3.1	2

Flow Rate: 0.4 mL/min
Temperature: 25 °C
Detection: MS/MS (SCIEX API 4000™)
Sample: 1. Norm nicotine
2. 3-Hydroxycotinine
3. Nicotine
4. Cotinine
5. Anabasine

MMA and Succinic Acid



Conditions for all columns:

Columns: Luna Omega 1.6 μm PS C18
Conventional Fully Porous 2 μm C18
Dimension: 50 x 2.1 mm
Mobile Phase: A: Water with 0.1 % Formic Acid
B: Acetonitrile with 0.1 % Formic Acid
Gradient:

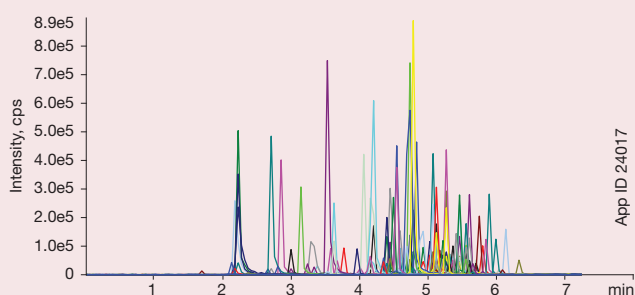
Time (min)	% B
0	0
5	50
5.1	0
7	0

Flow Rate: 0.5 mL/min
Temperature: 22 °C
Detection: MS/MS (SCIEX API 4000™)
Sample: 1. Succinic acid
2. MMA

Optimal Selectivity for Complex Polar/Non-Polar Mixtures

Use the combined core-shell performance and dual polar/non-polar selectivity gains of the Kinetex 2.6 μm Polar C18 to easily expand the elution window and resolution values for your multi-compound methodologies that contain polar and non-polar compounds.

Columns: Kinetex 2.6 μm Polar C18
Dimension: 50 x 4.6 mm
Mobile Phase: A: Water
B: 0.1 % Formic Acid in Methanol
Gradient: 5-100 % B in 5 min, hold 1 min
Flow Rate: 0.7 mL/min
Temperature: Ambient
Detection: MS/MS (SCIEX API 4000™)
Sample: 206 Pesticides.
Find the full compound list online at www.phenomenex.com/Application/Detail/24017



Increase Retention with Alkaline Mobile Phase

The chemical stability and wide pH range (1-12) of Kinetex EVO C18 organo-silica particles allow you to use high pH mobile phases that are above a basic compound's pK_a , thus enhancing retention and potentially improving resolution and sensitivity values.

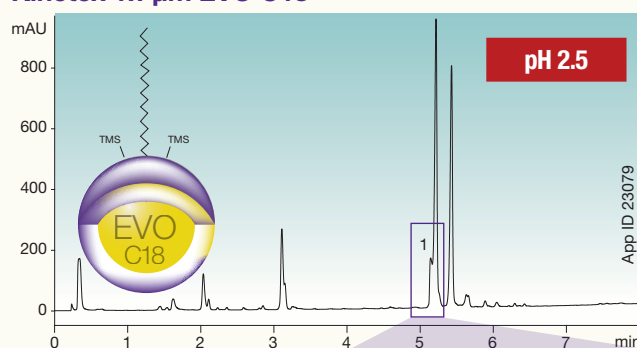
Conditions for all columns same except where noted:

Column: Kinetex 1.7 μm EVO C18
Dimensions: 50 x 2.1 mm
Part No.: 00B-4726-AN
Mobile Phase: A: 20 mM Potassium phosphate (pH 2.5)
B: Methanol
Mobile Phase: A: 20 mM Potassium phosphate (pH 10)
B: Methanol
Gradient:

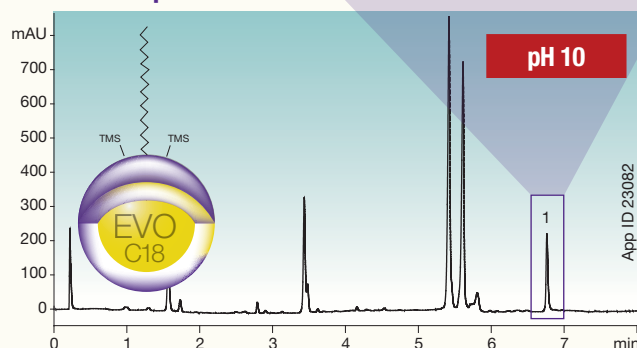
Time (min)	% B
0	5
8	90

Flow Rate: 0.5 mL/min
Temperature: 30 °C
Detection: UV @ 210 nm
Sample: 1. Fluvoxamine

Kinetex 1.7 μm EVO C18



Kinetex 1.7 μm EVO C18



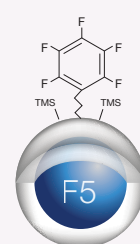
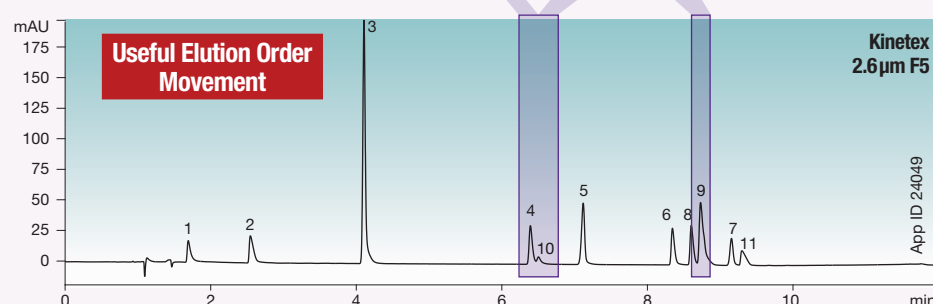
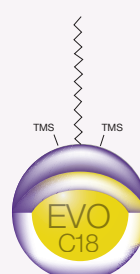
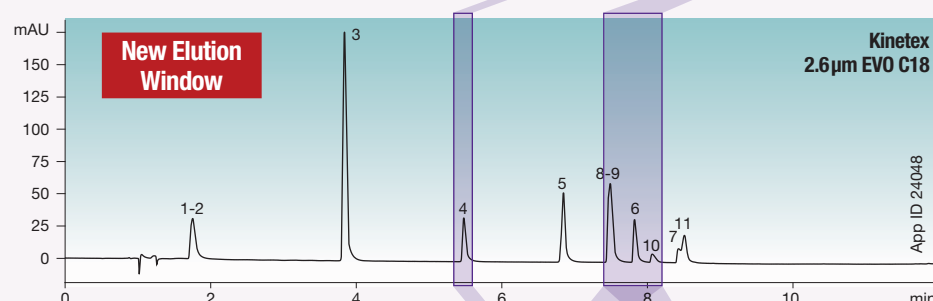
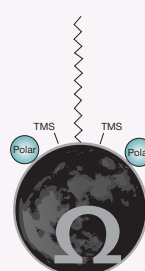
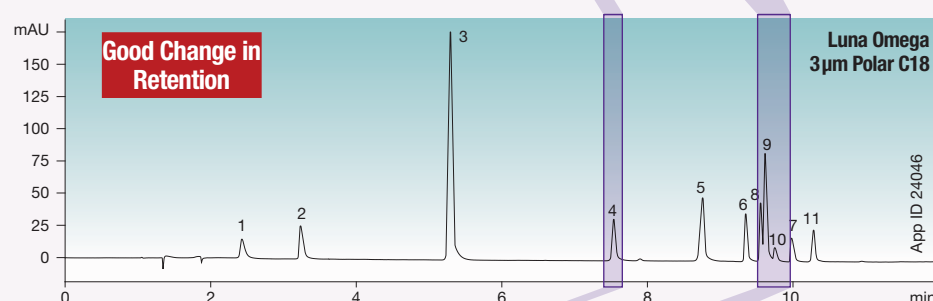
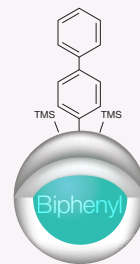
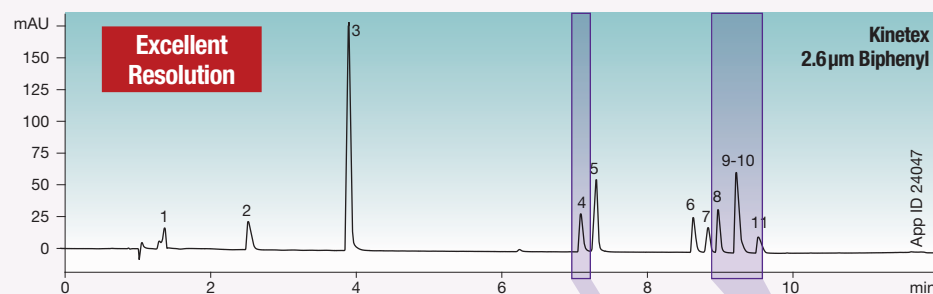
Utilize High pH Stability of EVO C18 to Enhance Retention

Comparative separations may not be representative of all applications.

Combined Method Development Flexibility

Expand your method development options by screening a combination of core-shell and fully porous particles with different selectivities which can increase retention, improve resolution, or even flip peak elution orders. The combination of available Luna® Omega stationary phases represent an outstanding tool set to start with for the separation of acids, bases, neutrals, or mixtures. At the same time, the Kinetex® core-shell EVO C18, Biphenyl, and F5 are outstanding orthogonal phases that can easily provide you with highly useful changes in elution windows and retention times.

Cold Medicine Ingredients



Conditions for all columns:

Columns: Kinetex 2.6µm Biphenyl
Luna Omega 3µm Polar C18
Kinetex 2.6µm EVO C18
Kinetex 2.6µm F5

Dimension: 100 x 4.6 mm

Mobile Phase: A: 20 mM Potassium Phosphate pH 3.5
B: Acetonitrile

Gradient:	Time (min)	% B
	0	2
	7	30
	12	80

Flow Rate: 1 mL/min

Temperature: Ambient

Detection: UV @ 254 nm

Sample: 1. Maleic Acid
2. Phenylephrine
3. Acetaminophen
4. Doxylamine
5. Pyrilamine
6. Chlorpheniramine

7. Dextromethorphan
8. Bromopheniramine
9. 4-Nitrophenol
10. Acetylsalicylic Acid
11. Diphenhydramine

Improve Peak Shape for Bases

The unique surface of the Luna Omega PS C18 contains a positive charged ligand which aids in the retention of acidic compounds through ionic interactions, while also greatly improving the peak shape of basic compounds through ionic repulsion.

Conditions for all columns:

Column: Luna Omega 3µm PS C18
Conventional Fully Porous 3µm C18

Dimensions: 100 x 4.6 mm

Mobile Phase: A: Water with 0.1 % Formic Acid
B: Acetonitrile with 0.1 % Formic Acid

Gradient: 10 - 95 % B in 10 min

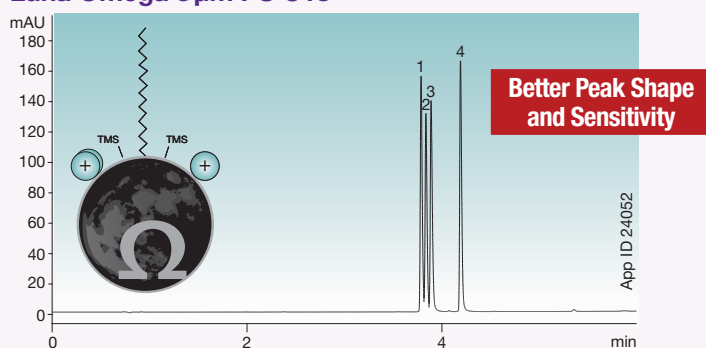
Flow Rate: 1.5 mL/min

Temperature: Ambient

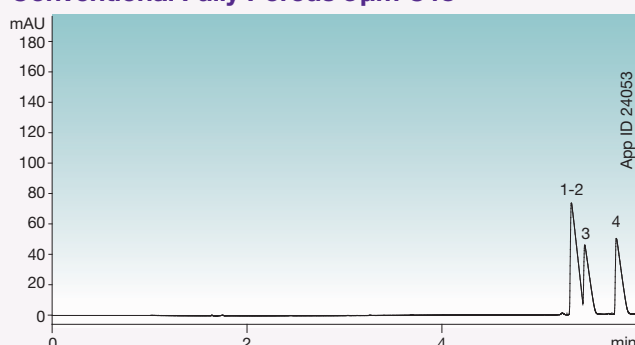
Detection: UV @ 254 nm

Sample: 1. Amitriptyline
2. Nortriptyline
3. Imipramine
4. Clomipramine

Luna Omega 3µm PS C18



Conventional Fully Porous 3µm C18



Comparative separations may not be representative of all applications.

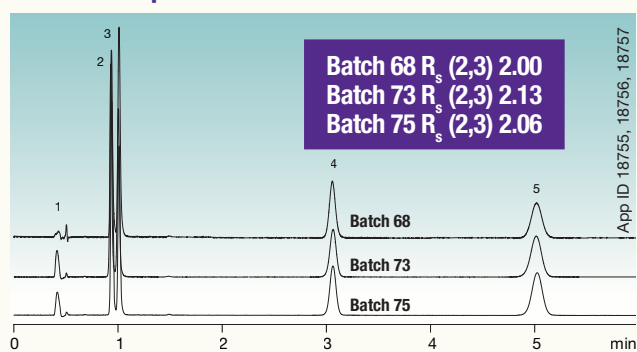
Superior Reproducibility And Scalability

Batch-to-batch and column-to-column, Luna® Omega and Kinetex® advanced surface chemistries are designed to be consistent and incredibly accurate tools for your analyses. Each batch and column are quality tested to ensure dependability and reproducibility. Additionally, direct selectivity scalability between particles sizes in both product families enables fluid method transfer from UHPLC platforms to HPLC and preparative instrumentation.

Batch-to-Batch Reproducibility

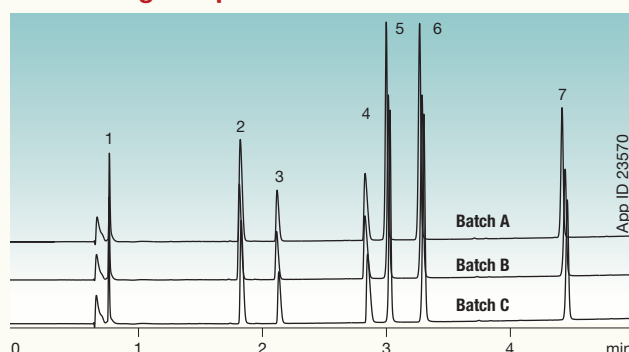
Steroids

Kinetex 2.6µm C18



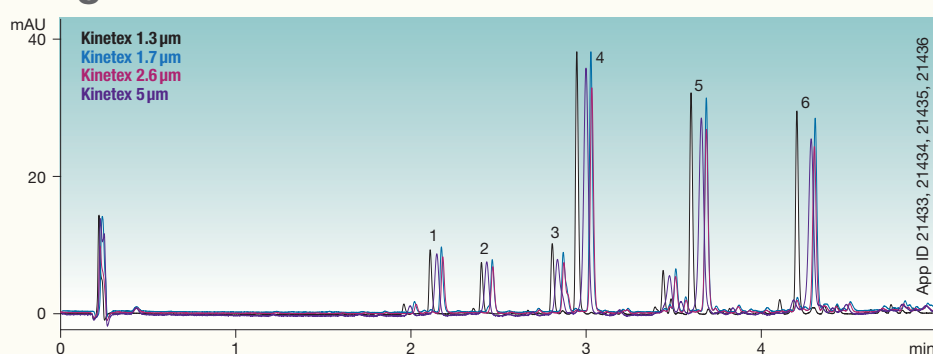
Pharmaceutical Mix

Luna Omega 1.6µm Polar C18

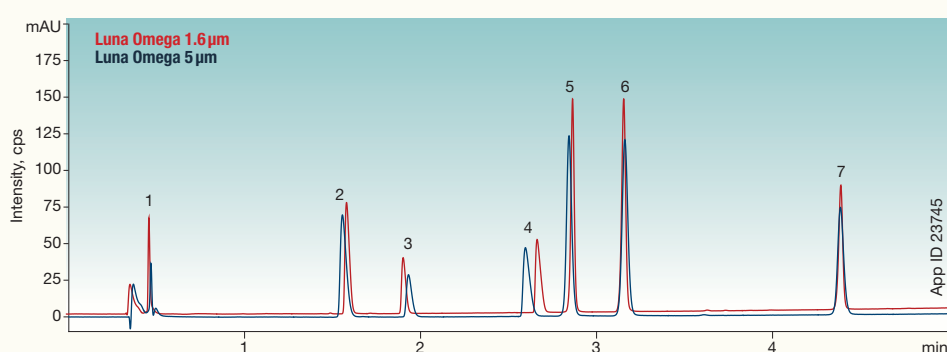


Seamless Scalability (UHPLC/HPLC/PREP LC)

Gingerols



Pharmaceutical Mix



Comparative separations may not be representative of all applications.

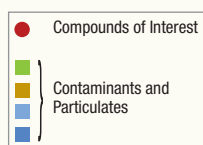
Remove harmful contaminants and particulates For Longer Column Lifetimes



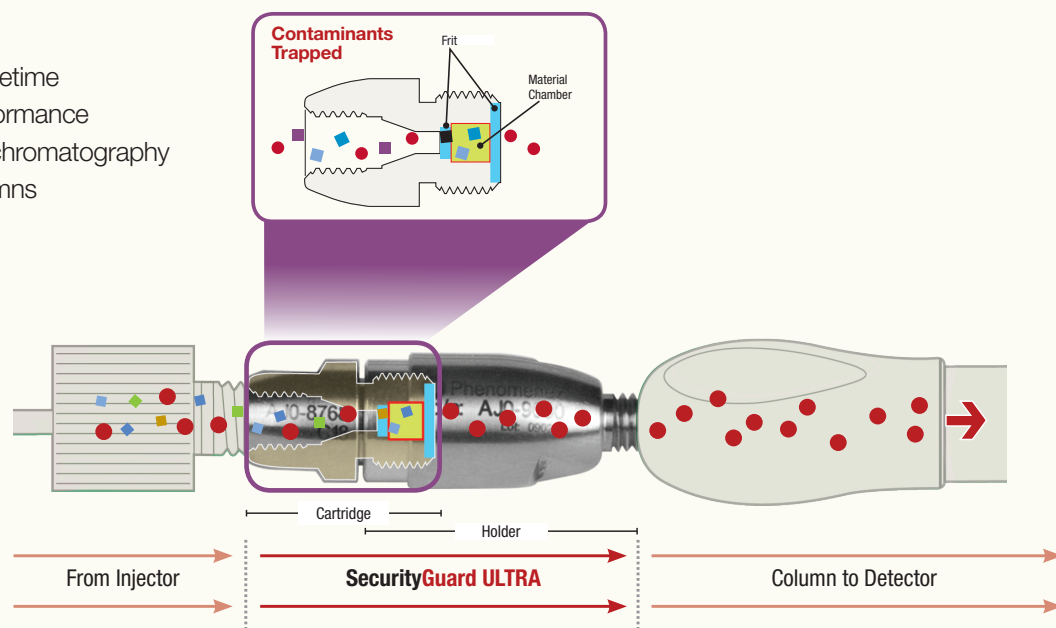
The SecurityGuard column protection systems traps contaminants and particulates. Once the cartridge is exhausted, simply replace it instead of your column!

You will experience:

- Increased column lifetime
- Higher column performance
- More reproducible chromatography
- Fewer wasted columns



* Cartridge schematic not drawn to scale



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www.phenomenex.com

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Subject to Phenomenex Standard Terms & Conditions, which may be viewed at www.phenomenex.com/TermsAndConditions.

Trademarks

Axia, MidBore, SecurityGuard, Aeris, and Synergi are trademarks, Luna, Gemini, Lux, Clarity, and Kinetex are registered trademarks of Phenomenex. API 4000 is a trademark of AB SCIEX Pte. Ltd. AB SCIEX™ is being used under license.

Disclaimer

Comparative separations may not be representative of all applications.

Axia column and packing technology is patented by Phenomenex.

U.S. Patent No. 7, 674, 383

Gemini and Kinetex EVO are patented by Phenomenex. U.S. Patent Nos. 7,563,367 and 8,658,038 and foreign counterparts.

SecurityGuard is patented by Phenomenex. U.S. Patent No. 6,162,362

CAUTION: this patent only applies to the analytical-sized guard cartridge holder, and does not apply to SemiPrep, PREP or ULTRA holders, or to any cartridges.

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Luna Omega Phase Selection

C18
Rugged and highly efficient C18 with strong focus on hydrophobic retention of non-polar and polar compounds.

Polar C18
100% aqueous stability and enhanced selectivity/retention for polar analytes without changing useful non-polar retention. The C18 ligand provides general hydrophobic interactions while a polar modified particle surface provides enhanced polar compound retention. The positively charged surface also improves basic compound peak shape through ionic repulsion.

PS C18
Unique, 100% aqueous stable mixed-mode phase that provides both polar and non-polar retention. The surface contains a positive charged ligand which aids in the retention of acidic compounds through ionic interactions, while the C18 ligand promotes general reversed phase retention. The positively charged surface also improves basic compound peak shape through ionic repulsion.

Carbon Load (%)	11	9	9
Available Particle Sizes (µm)	1.6µm, 3µm, 5µm	1.6µm, 3µm, 5µm	1.6µm, 3µm, 5µm
USP Listing	L1	L1	L1

www.phenomenex.com/LunaOmega

Luna Omega Particle Selection

Complete scalable solution from UHPLC to HPLC to PREP LC

UHPLC (1.6 µm)
Evolve UHPLC efficiency and increase that drive greater performance gains.

HPLC (3 µm)
Easily upgrade existing 3µm and 5 µm conventional fully porous methods to gain greater resolution and sensitivity.

PREP LC (5 µm)
All purpose HPLC and Preparative LC particle capable of improving performance for existing 5-10 µm methods.

www.phenomenex.com/LunaOmega

Kinetex Core-Shell Particle Selection

Complete scalable solution from UHPLC to HPLC to PREP LC

UHPLC (1.3 µm, 1.7 µm)
Innovative UHPLC efficiency and performance gains.

HPLC (2.6 µm, 3.5 µm)
20% Higher efficiency than fully porous 1.7µm columns. Achieve sub-2µm performance on HPLC and UHPLC systems.

PREP LC (5 µm)
Historically improve your pharmaceutical (Ph. Eur. & USP) monographs that require 5µm particle size. 3µm or better efficiency at 5µm pressures for HPLC and PREP LC methods.

www.phenomenex.com/Kinetex

Kinetex Phase Selection

Polar C18
Combined C18 and polar modified surface that provides polar and non-polar retention alongside 100% aqueous stability.

EVO C18
Robust reversed phase method with improved peak shape for polar basic compounds.

C18
All purpose phase that offers the hydrophobic retention at maximum selectivity. Chromatograms repeat from under neutral and acidic conditions.

PS C18
C18 phase with protective built-in silica for improved peak shape for reversed phase.

F5
USP L7 phase that provides hydrophobic and methylene selectivity with a C18.

Biphenyl
Highly reproducible pentabiphenyl (ppb) phase that offers a unique combination of polar, hydrophobic, aromatic, and shape selectivity.

Phenyl-Hexyl
100% aqueous stable and allows for excellent reversed phase retention and enhanced separation of aromatic and aliphatic selectivity.

HILIC
Reversed phase chemistry that allows for greater retention and separation of aromatic hydrocarbons.

HILIC
Unbonded silica phase for HILIC conditions to provide selectivity for polar compounds.

www.phenomenex.com/Kinetex

The Ultimate Guide to Reversed Phase HPLC/UHPLC Selectivity

Hydrocarbon Compounds

High column hydrophobicity values indicate greater retention of carbon-containing analytes.

Hydrophobicity

Synergi Hydro-RP
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Synergi Max-RP

Synergi Max-RP
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Luna C18(2)

Luna C18(2)
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Synergi Fusion-RP

Synergi Fusion-RP
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Luna Omega C18

Luna Omega C18
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Gemini C18

Gemini C18
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex XB-C18

Kinetex XB-C18
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Gemini C6-Phenyl

Gemini C6-Phenyl
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Luna PFF(2)

Luna PFF(2)
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Synergi Polar-RP

Synergi Polar-RP
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex C8

Kinetex C8
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex Phenyl-Hexyl

Kinetex Phenyl-Hexyl
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex F5

Kinetex F5
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Hydroxyl- or Amine-containing Functionalities

Hydrogen bond accepting groups on the silica surface interact with hydrogen bond donating functionalities on analytes.

Hydrogen Bond Accepting Capacity

Kinetex Biphenyl
Hydrogen Bond Donating Capacity: High
Hydrogen Bond Accepting Capacity: High
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex Biphenyl

Kinetex Biphenyl
Hydrogen Bond Donating Capacity: High
Hydrogen Bond Accepting Capacity: High
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex XB-C18

Kinetex XB-C18
Hydrogen Bond Donating Capacity: High
Hydrogen Bond Accepting Capacity: High
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex C8

Kinetex C8
Hydrogen Bond Donating Capacity: High
Hydrogen Bond Accepting Capacity: High
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex Phenyl-Hexyl

Kinetex Phenyl-Hexyl
Hydrogen Bond Donating Capacity: High
Hydrogen Bond Accepting Capacity: High
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Kinetex F5

Kinetex F5
Hydrogen Bond Donating Capacity: High
Hydrogen Bond Accepting Capacity: High
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Luna Omega Polar C18

Luna Omega Polar C18
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Gemini C18

Gemini C18
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Synergi Fusion-RP

Synergi Fusion-RP
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Luna Omega PS C18

Luna Omega PS C18
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Luna C18(2)

Luna C18(2)
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Isomers, Isobaric Compounds, and Shape Selectivity

High column steric interaction values are best suited for the analysis of analytes that require separation based on size and shape differences.

Synergi Hydro-RP

Synergi Hydro-RP
Steric Interaction: High
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Gemini C18

Gemini C18
Steric Interaction: High
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Synergi Max-RP

Synergi Max-RP
Steric Interaction: High
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Luna Omega PS C18

Luna Omega PS C18
Steric Interaction: High
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low
Cation Selectivity at pH 2.8: Low
Cation Selectivity at pH 7.0: High

Non-ionized Bases and Oxygen- or Halogen-containing Compounds

High column cation selectivity values will show higher retention for ionized bases. Low column cation selectivity values will have less interaction and retention for ionized bases, but may have very good peak shape.

Synergi Max-RP

Synergi Max-RP
Cation Selectivity at pH 2.8: High
Cation Selectivity at pH 7.0: High
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low

Luna C18(2)

Luna C18(2)
Cation Selectivity at pH 2.8: High
Cation Selectivity at pH 7.0: High
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low

Luna PFF(2)

Luna PFF(2)
Cation Selectivity at pH 2.8: High
Cation Selectivity at pH 7.0: High
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low

Kinetex EVO C18

Kinetex EVO C18
Cation Selectivity at pH 2.8: High
Cation Selectivity at pH 7.0: High
Hydrophobicity: High
Steric Interaction: Low
Hydrogen Bond Donating Capacity: Low
Hydrogen Bond Accepting Capacity: Low

KINETEX Core-Shell Technology

5µm MidBore™ Columns (mm)	100 x 3.0	150 x 3.0	250 x 3.0	SecurityGuard™ ULTRA Cartridges
Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1
EVO C18	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
PS C18	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
F5	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
Biphenyl	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
Phenyl-Hexyl	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN

3µm Analytical Columns (mm)	100 x 4.6	150 x 4.6	250 x 4.6	SecurityGuard™ ULTRA Cartridges
Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1
EVO C18	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
PS C18	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
F5	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
Biphenyl	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
Phenyl-Hexyl	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN

5µm Analytical Columns (mm)	100 x 4.6	150 x 4.6	250 x 4.6	SecurityGuard™ ULTRA Cartridges
Phases	30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1
EVO C18	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
PS C18	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
F5	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
Biphenyl	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN
Phenyl-Hexyl	00A-4633-AN	00B-4633-AN	00C-4633-AN	00D-4633-AN

Which solid support is right for your analysis?
Performance Gains on ANY HPLC or UHPLC System

Core-Shell Particles

- Ultra-high efficiency at decreased backpressure (2.6µm)
- 3µm or better efficiencies at 5µm pressures (5µm)
- Easy method transfer between HPLC and UHPLC systems
- Highest efficiencies on UHPLC systems (1.3µm and 1.7µm)

Additional Selection Tips

- Polar Acids**
 - Luna Omega PS C18
- Alkaline Mobile Phases (pH 8-12)**
 - Kinetex EVO C18
 - Gemini NX-C18
 - Gemini C18
 - Luna Omega PS C18
 - Gemini C6-Phenyl
- Aromatic Compounds**
 - Kinetex F5
 - Kinetex Biphenyl
 - Luna PFF(2)
- Synthetic Oligonucleotides**
 - Clarity® Oligo-XT
 - Clarity Oligo-RP
- Proteins (>10 kDa)**
 - Aeris WIDEPORE
 - Aeris WIDEPORE XB-C8
 - Aeris WIDEPORE C4
- Peptides (<10 kDa)**
 - Aeris PEPTIDE
 - Lux Cellulose-1
 - Lux Cellulose-4
 - Lux Cellulose-5
- Chiral Compounds**
 - Lux® Amylose-1
 - Lux Cellulose-1
 - Lux Cellulose-4
 - Lux Cellulose-5

Important!
Only column selectivity parameters of the same class (i.e. Steric Interactions) may be compared between the columns featured here. Hydrophobicity is the main mechanism of retention under reversed phase conditions. Within the column profiles the 5 different selectivity parameter classes are not on the same scale.

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