

Stationary Phase: **C18**

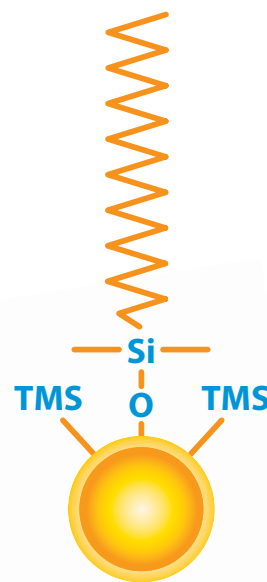
# Raptor

LC Columns

*Selectivity Accelerated*

## Raptor Speed, Efficiency, and Ruggedness—in C18

Every LC lab has a cache of C18s, but not all C18s are created equal. When you need a general-purpose LC column, don't just grab any C18. Choose the speed, efficiency, and long-lasting ruggedness of the Raptor C18.



**RESTEK**

Pure Chromatography

[www.restek.com/raptor](http://www.restek.com/raptor)

# Raptor C18 Columns

- A traditional end-capped C18 ideal for general-purpose use in reversed-phase chromatography.
- Wide pH range (2–8) provides excellent data quality for many applications, matrices, and compounds.
- Offers the highest hydrophobic retention of any Raptor phase.

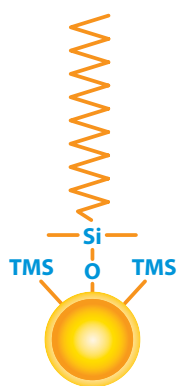
To lower costs and improve profitability, you need columns to last longer, data to be reproducible, and existing HPLC and UHPLC instrumentation to run faster. Get there with the only general-purpose C18 that gives you *Selectivity Accelerated*.

**Part of Restek's Raptor LC column line featuring 1.8, 2.7, and 5  $\mu\text{m}$  SPP core-shell silica:**

- Higher efficiencies and resolution for drastically faster analysis times, especially for traditional HPLC instruments.
- Faster analyses mean increased sample throughput.
- Long-lasting ruggedness for dependable reproducibility.

Outfit your lab with Raptor C18s at [www.restek.com/raptor](http://www.restek.com/raptor)

## Column Description:



**Stationary Phase Category:**  
C18, octadecylsilane (L1)

**Ligand Type:**  
End-capped C18

**Particle:**  
1.8  $\mu\text{m}$ , 2.7  $\mu\text{m}$ , or 5  $\mu\text{m}$  superficially porous silica (SPP or "core-shell")

**Pore Size:**  
90 Å

**Surface Area:**  
125  $\text{m}^2/\text{g}$  (1.8  $\mu\text{m}$ ), 130  $\text{m}^2/\text{g}$  (2.7  $\mu\text{m}$ ), or 100  $\text{m}^2/\text{g}$  (5  $\mu\text{m}$ )

## Recommended Usage:

pH Range: 2.0–8.0

Maximum Temperature: 80 °C

Maximum Pressure: 1,034 bar/15,000 psi\* (1.8  $\mu\text{m}$ ), 600 bar/8,700 psi (2.7  $\mu\text{m}$ ); 400 bar/5,800 psi (5  $\mu\text{m}$ )

\* For maximum lifetime, recommended maximum pressure for 1.8  $\mu\text{m}$  particles is 830 bar/12,000 psi.

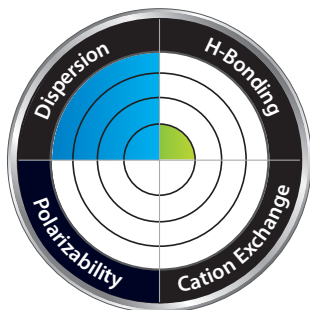
## Properties:

- Compatible with moderately acidic to neutral mobile phases (pH 2–8).
- Excellent data quality in food, environmental, bioanalytical, and other applications.

## Switch to a C18 when:

- You need a general-purpose column for reversed-phase chromatography.
- You need to increase retention of hydrophobic compounds.

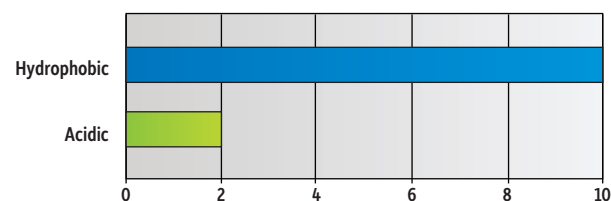
## Column Interaction Profile:



## Defining Solute Interaction:

- Dispersion

## Solute Retention Profile:



## Target Analyte Structure:

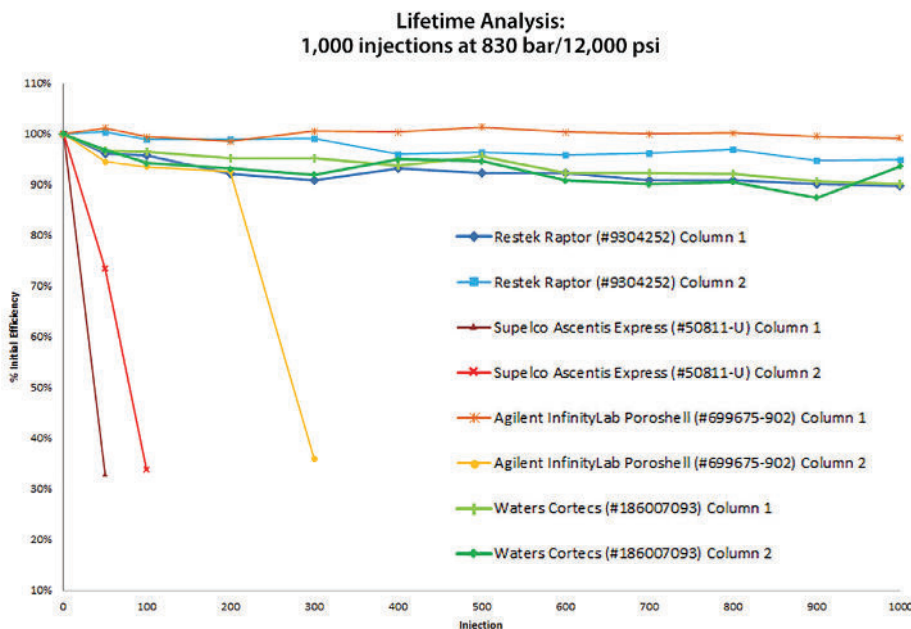
- Hydrocarbons

## Target Analyte Functionality:

- Hydrophobic compounds

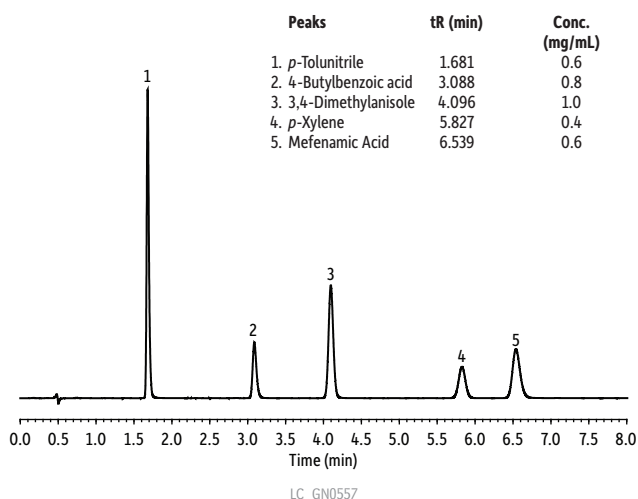
# Raptor C18 Performance: Speed, Efficiency, and Ruggedness in Action

**Figure 1:** Comparing 50 mm x 2.1 mm sub-2 µm C18 columns, Raptor columns maintain reliable performance past 1,000 injections, consistently matching or beating the competition.



**Figure 2:** Raptor columns' stringent quality control (QC) specifications guarantee outstanding peak shape, even with active compounds, for superior data quality.

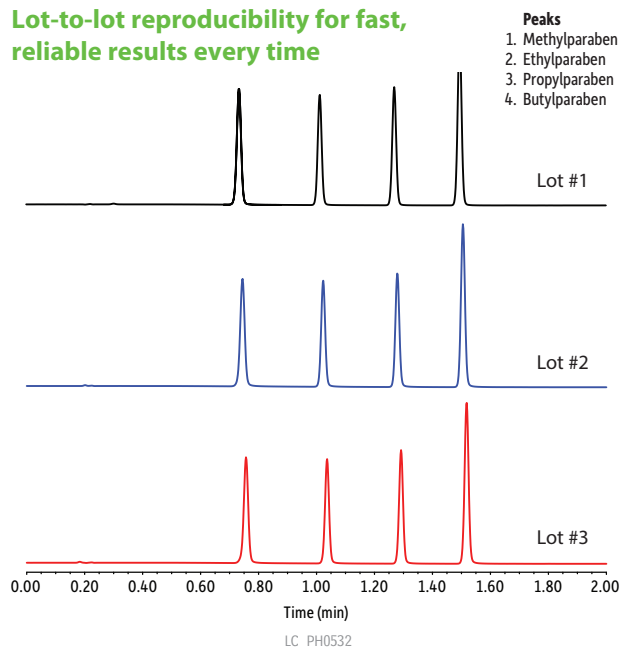
**Outstanding peak shapes  
for top-notch data**



**Column:** Raptor C18 (cat.# 9304A1E); Dimensions: 100 mm x 3 mm ID; Particle Size: 2.7 µm; Pore Size: 90 Å; Temp.: 30 °C; **Sample:** Diluent: Acetonitrile:water:phosphoric acid (65:34:1); Inj. Vol.: 1 µL; **Mobile Phase:** A: 0.05% Formic acid in water, B: 0.05% Formic acid in acetonitrile; **Gradient (%B):** 0.00 min (45% B), 8.00 min (45% B); **Flow:** 0.8 mL/min; **Detector:** UV/Vis @ 220 nm; Cell Temp: 40 °C; **Instrument:** HPLC.

**Figure 3:** Lot-to-lot reproducibility is the key to keeping your productivity high and budget low. You can expect the same exceptional performance from every Raptor C18 column you purchase.

**Lot-to-lot reproducibility for fast,  
reliable results every time**



**Column:** Raptor C18 (cat.# 9304512); Dimensions: 100 mm x 2.1 mm ID; Particle Size: 5 µm; Temp.: 40 °C; **Sample:** Conc.: 100 µg/mL in water; Inj. Vol.: 1 µL; **Mobile Phase:** A: Water, B: Acetonitrile; **Gradient (%B):** 0.00 min (20% B), 2.00 min (80% B), 2.01 min (20% B), 3.50 min (20% B); **Flow:** 1.0 mL/min; **Detector:** PDA @ 254 nm; **Instrument:** UHPLC.

Experience *Selectivity Accelerated*. Order the Raptor C18 today at [www.restek.com/raptor](http://www.restek.com/raptor)

# Lower Costs and Improve Profitability with the Only General-Purpose C18 That Gives You *Selectivity Accelerated*

## Raptor C18 LC Columns



Length	2.1 mm cat.#	3.0 mm cat.#	4.6 mm cat.#
<b>1.8 µm Columns</b>			
30 mm	9304232	—	—
50 mm	9304252	930425E	—
100 mm	9304212	930421E	—
150 mm	9304262	—	—
<b>2.7 µm Columns</b>			
30 mm	9304A32	9304A3E	9304A35
50 mm	9304A52	9304A5E	9304A55
100 mm	9304A12	9304A1E	9304A15
150 mm	9304A62	9304A6E	9304A65
<b>5 µm Columns</b>			
30 mm	—	930453E	—
50 mm	9304552	930455E	9304555
100 mm	9304512	930451E	9304515
150 mm	9304562	930456E	9304565
250 mm	—	—	9304575

## EXP Reusable Fittings for HPLC & UHPLC for 10-32 fittings and 1/16" tubing

Effortlessly achieve 8,700+ psi HPLC seals by hand! (Wrench tighten to 20,000+ psi.) Hybrid titanium/PEEK seal can be installed repeatedly without compromising your seal.

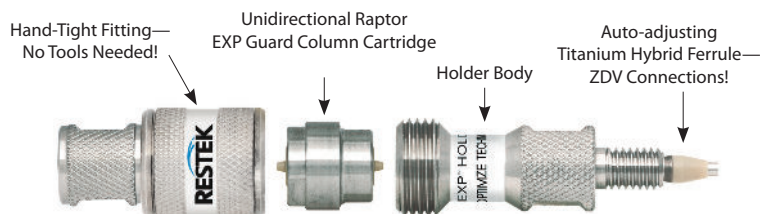


Description	qty.	cat.#
EXP Hand-Tight Fitting (Nut w/Ferrule)	ea.	25937
EXP Hand-Tight Fitting (Nut w/Ferrule)	10-pk.	25938
EXP Hand-Tight Nut (w/o Ferrule)	ea.	25939

Hybrid Ferrule U.S. Patent No. 8201854, EXP Holders U.S. Patent No. 8696902, EXP2 Wrench U.S. Patent No. D766055. Other U.S. and Foreign Patents Pending. The EXP, Free-Turn, and the Opti- prefix are registered trademarks of Optimize Technologies, Inc.

Experience *Selectivity Accelerated*.  
Order the Raptor C18 today at  
[www.restek.com/raptor](http://www.restek.com/raptor)

## Raptor EXP Guard Cartridges—for All Raptor Columns



Protect your investment, extend the life of our already-rugged LC columns, and change guard column cartridges by hand without breaking fluid connections—no tools needed! Great with any Raptor column to get ultimate protection from particulates and matrix contamination, especially when using dilute-and-shoot or other minimal sample preparation techniques.

### EXP Direct Connect Holder

Description	qty.	cat.#
EXP Direct Connect Holder for EXP Guard Cartridges (includes hex-head fitting & 2 ferrules)	ea.	25808

Maximum holder pressure: 20,000 psi (1,400 bar)

### Raptor EXP Guard Column Cartridges

Description	Particle Size	qty.	5 x 2.1 mm cat.#	5 x 3.0 mm cat.#	5 x 4.6 mm cat.#
Raptor C18 EXP Guard Column Cartridge	UHPLC	3-pk.	9304U0252	9304U0253	
Raptor C18 EXP Guard Column Cartridge	2.7 µm	3-pk.	9304A0252	9304A0253	9304A0250
Raptor C18 EXP Guard Column Cartridge	5 µm	3-pk.	930450252	930450253	930450250

1,034 bar/15,000 psi\* (UHPLC), 600 bar/8,700 psi (2.7 µm); 400 bar/5,800 psi (5 µm).

\* For maximum lifetime, recommended maximum pressure for 1.8 µm particles is 830 bar/12,000 psi.

Raptor SPP LC columns combine the speed of SPP with the resolution of USLC technology.  
Learn more at [www.restek.com/raptor](http://www.restek.com/raptor)

## UltraShield UHPLC PreColumn Filter—for 1.8 µm Raptor Columns

Pair 1.8 µm Raptor columns with an UltraShield filter instead of a guard cartridge to protect against particulates, minimize extra column volume, and maximize UHPLC sample throughput when using SPE, SLE, or other extensive sample preparations.



Description	Filter Porosity	qty.	cat.#
UltraShield UHPLC PreColumn Filter	0.2 µm frit	ea.	25809
		5-pk.	25810
		10-pk.	25811

### Questions about this or any other Restek product?

Contact us or your local Restek representative ([www.restek.com/contact-us](http://www.restek.com/contact-us)).

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Lit. Cat.# GNSS2093D-UNV

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Pure Chromatography