

# Agilent Prep LC Columns

## Highest Sample Loading



**Readily available**  
for high-throughput  
applications—when  
you have to deliver  
results fast!

### A Major Advance in Productivity

Agilent Technologies' line of preparative liquid chromatography (LC) columns offers the highest sample loading among major commercial preparative columns. With these columns, chemists in the pharmaceutical industry can reliably purify large amounts of target compounds at a lower cost.

### Superior Sample Loading

Agilent Prep LC columns:

- Are available with C18 and bare silica packing material, offering high carbon load and large surface area. This allows the maximum amount of sample that can be placed onto the column without reducing selectivity.
- Provide highest sample loading at both low and high pH, which helps increase product yield and system throughput.

### Excellent Column Stability

These columns are exceptionally stable, maintaining good efficiency and peak shape for more than 1,000 injections.

### Easy, Reliable Scale-up

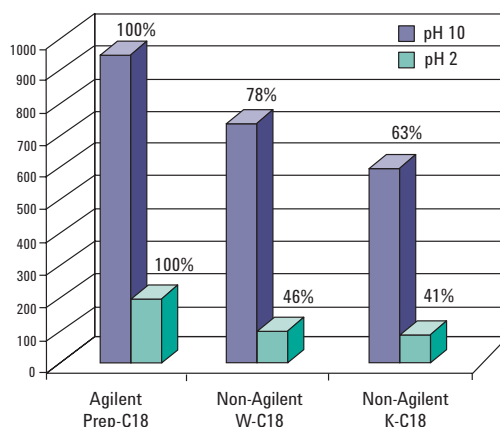
A variety of dimensions lets you develop methods on the Prep LC columns easily. You can purify microgram to gram quantities of sample with consistent results, making method transfer simple and predictable.

### Longer Column Lifetime

These are the first columns from Agilent to use a 10  $\mu\text{m}$  particle size, allowing lower column pressures and long column lifetime.

A 5  $\mu\text{m}$  particle size is available for high-throughput separations or for very complex samples.

Agilent Prep-C18 column has higher sample loading at pH 2 and 10



	Conditions pH 2	Conditions pH 10
Mobile phase:	0.1% TFA in Water/ACN (ratio was adjusted at 41%–45%B to have same k)	10 mM ammonia in Water/ACN (ratio was adjusted at 80%–85%B to have same k)
Column:	4.6 x 150 mm, 5 $\mu\text{m}$	
Flow:	1.0 mL/min	
Injection:	20 $\mu\text{L}$	
Sample:	Oxybutynin in DMSO	

**Sample loading comparison of the basic compound, oxybutynin, at pH 2 and 10 in DMSO, using Agilent Prep-C18 column and two non-Agilent columns.**

**Reproducible purification  
of micrograms to grams across  
different column sizes**



**Agilent Technologies**

## Order Guide for Agilent Prep Columns

Available in dimensions up to 50 mm I.D.				
Column description	Size (mm)	Particle size (µm)	C18	Silica
Scalar	4.6 x 250	10	440910-902	440910-901
Scalar	4.6 x 150	10	443910-902	443910-901
Scalar	4.6 x 100	10	449910-902	—
Scalar	4.6 x 250	5	440905-902	440905-901
Scalar	4.6 x 150	5	443905-902	443905-901
Scalar	4.6 x 100	5	449905-902	449905-901
Scalar	4.6 x 50	5	446905-902	446905-901
<b>PrepHT cartridge columns (require hardware kit 820400-901)</b>				
PrepHT	21.2 x 250	10	410910-102	410910-101
PrepHT	21.2 x 150	10	413910-102	413910-101
PrepHT	21.2 x 150	5	443905-102	443905-101
PrepHT	21.2 x 100	5	449905-102	449905-101
PrepHT	21.2 x 50	5	446905-102	446905-101
<b>Standard fittings (no hardware required)</b>				
Prep 30	30 x 250	10	410910-302	410910-301
Prep 30	30 x 150	10	413910-302	413910-301
Prep 30	30 x 100	10	419910-302	419910-301
Prep 30	30 x 100	5	449905-302	449905-301
Prep 30	30 x 50	5	446905-302	446905-301
Prep 50	50 x 250	10	410910-502	410910-501
Prep 50	50 x 150	10	413910-502	413910-501
Prep 50	50 x 100	10	419910-502	419910-501
Prep 50	50 x 100	5	449905-502	449905-501
Prep 50	50 x 50	5	446905-502	446905-501
PrepHT Column Hardware Kit	—	—	820400-901	820400-901
PrepHT Guard Cartridges, 2/pack	21.2 x 10	10	420212-902	420212-901
Prep HT Guard Hardware	—	—	820444-901	820444-901
Prep External Guard Hardware	—	—	420420-901	420420-901
Bulk packing	1 kg	10	420910-902	420910-901

### Sample Loading Comparison

Column	mg loaded on at Rs = 1.25	mg loaded per g packing	mg loadable in 50 x 250 mm column
Agilent Prep-C18	4.80	3.47	1735
Non-Agilent K-C18	4.45	2.68	1340
Non-Agilent W-C18	3.88	2.32	1160
Mobile phases:	A=H <sub>2</sub> O B=Methanol, isocratic, 70.5%–78% B (initial resolution = 1.8)		
Column temperature:	30 °C		
Injection:	125 µL of each dilution		
Sample:	100 mg/mL each of methyl benzoate and ethyl benzoate in 90% methanol		

### Want More Information?

Visit [www.agilent.com/chem](http://www.agilent.com/chem) and click “Agilent Prep Columns” under “Columns & Accessories.”

Information, descriptions and specifications in this publication are subject to change without notice.

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Printed in the USA November 30, 2004  
5989-1512EN

**Get  
ahead**  
with an Agilent  
Prep LC column



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