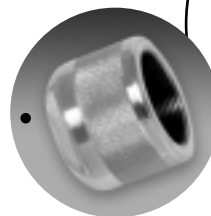
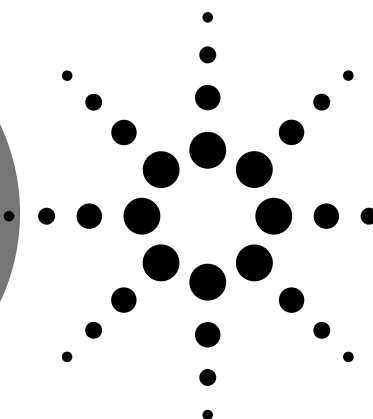
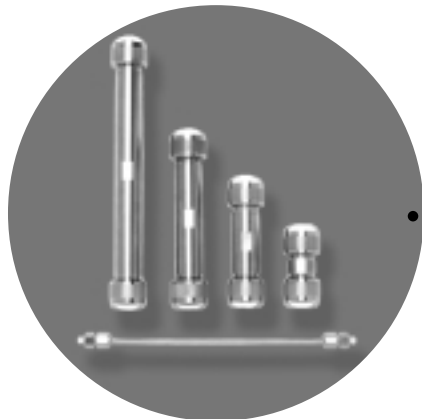


PrepHT Preparative HPLC Columns— extending a growing family of ZORBAX optimized columns

Fast and easy scale-up from analytical to preparative



**End fittings for
just \$1**

when you purchase an
Agilent PrepHT column
before December 31, 2003.
Special offer part
number 5188-2704.

A total solution for purification systems

ZORBAX PrepHT (preparative high throughput) columns give you rapid, seamless scale-up from analytical HPLC scale to preparative scale (see Figure 1). This lets you easily isolate and purify compounds of interest because all ZORBAX phase chemistries are available in all column dimensions. These chemistries are optimized for specific applications to offer high peak resolution and extended column life. PrepHT columns are available as simple-to-install cartridges in preparative dimensions (21.2 mm I.D.)

and various lengths. These cartridge columns require separate re-usable end fittings for operation.

- The **7 μ m particle size**, for longer columns (150 mm and 250 mm), balances high efficiency and high loadability without high backpressures.
- The **5 μ m particle size**, for shorter columns (50 mm, 100 mm, and 150 mm), offers better efficiency than commonly used 10 μ m particle columns.
- An **integral guard column** has an easy-to-install, finger-tight, re-usable end fitting for standard 21.2 mm I.D. columns. (Larger-diameter columns,

30 mm and 50 mm I.D., are available as custom orders with traditional non-cartridge end fittings.)

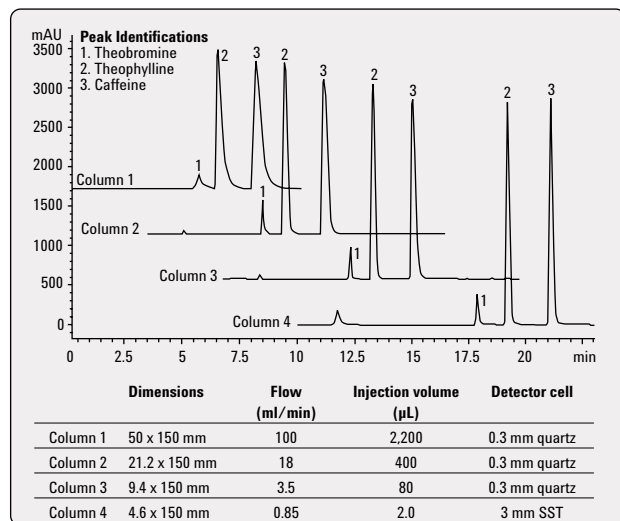
PrepHT columns with their unique selectivity and high efficiency improve laboratory productivity and increase yield by eliminating the need to re-purify compounds (see Figure 2).

High resolution of the ZORBAX particles produces:

- High loadability
- High yield
- High compound purity
- High throughput

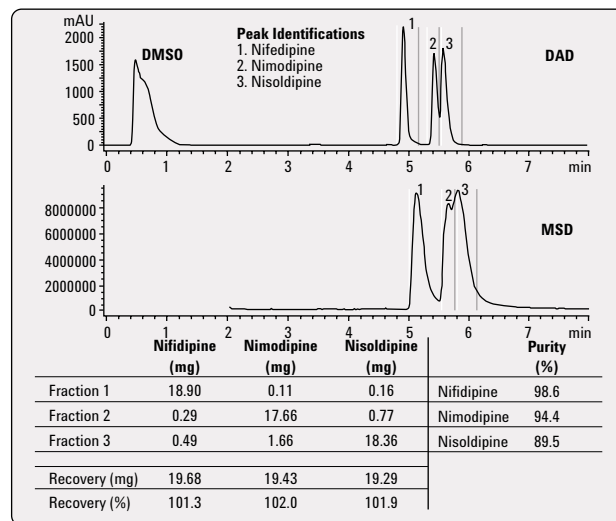
Figure 1. Scale-up from ZORBAX analytical to PrepHT SB-C18, 5 μ m columns using the same pump

Concentration: 1 mg/mL of each compound



Excellent peak shapes for basic and other polar analytes.

Figure 2. Mass-based fraction collection using ZORBAX SB-C18 column
Load: 20 mg of each compound



High recovery and $\geq 90\%$ purity—in a single run!



Agilent Technologies

Optimized for high resolution without higher price

The order guide on Page 3 lists the broad range of PrepHT columns, including:

- StableBond for low pH applications
- Eclipse XDB and Bonus-RP for mid-pH applications
- Extend for high pH applications
- Traditional ZORBAX phases

These columns are available in the same phases as ZORBAX analytical columns and use the same bonding chemistries and ultra-pure silica to ensure unique selectivity (see Figure 3). In this example, the Extend column, which is optimized for high pH applications, does not perform well in 0.1% formic acid. Bonus-RP is the optimized phase appropriate for the difficult separation of secondary amines.

Selection of the optimized phase leads to easy and rapid scale-up from an analytical to preparative column (see Figure 4).

Fast preparative separation up to 2,000 mg

The larger-diameter columns and stronger particles allow for flow rates up to 100 ml/min. The higher efficiency particles allow shorter columns—for an equivalent separation. The result: higher throughput.

Unique integral guard system

The optional guard cartridge inside the end fitting (see photo) prolongs the life of the column while minimizing dead volume.

Easy-to-install cartridge

PrepHT columns are available in easy-to-install cartridges with 21.2 mm I.D. and finger-tight end fittings. The cartridges seal up to 5,000 psi. PrepHT columns are also available in various lengths to allow optimum resolving power and speed of analyses.

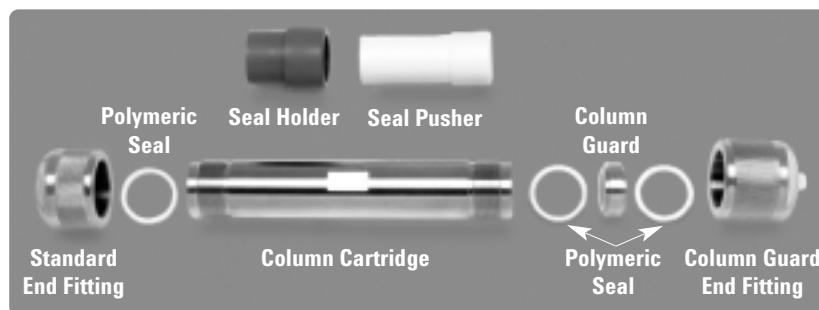
Custom Preparative Columns

30 mm and 50 mm I.D. preparative columns are also available as custom-

packed columns with traditional non-cartridge hardware (not shown here).

Contact your local Agilent sales office or an authorized Agilent sales representative to request a quotation on a custom column. Just provide the requirements and details of your desired column configuration.

Integral Guard Cartridge System



To install the guard column, one of the standard end fittings is replaced with the reusable, finger-tight guard cartridge end fitting with a pre-installed polymeric seal. The guard cartridge is housed inside the fitting, minimizing dead volume that can cause band broadening.

Figure 3. Bonded Phase Selectivity Comparison for Secondary Amines

Peak Identification: 1) Diphenhydramine Hydrochloride, 2) Oxybutynin Chloride, 3) Terfenadine
Injection Volume: 5 μ L
Sample Concentration: 10 mg/mL of each compound

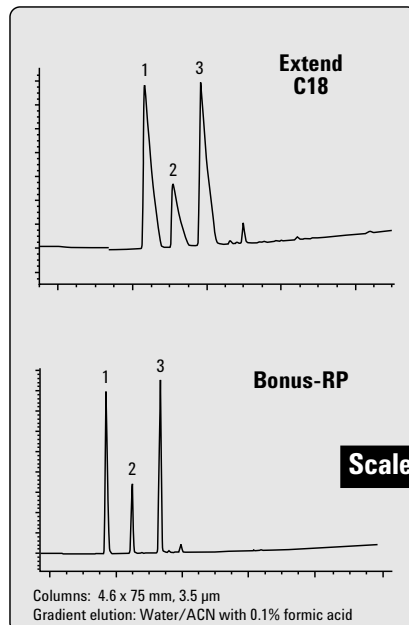
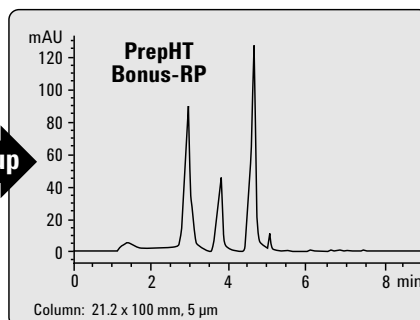


Figure 4. Preparative Separation on Bonus-RP

Injection Volume: 1 mL
Sample Concentration: 30 mg/mL of each compound



See PrepHT columns at www.agilent.com/chem

A unique choice of LC preparative columns for high purity and maximum yield—plus high throughput

ZORBAX PrepHT Columns Order Guide

Optimized with a broad range of selectivities to fit a wide pH range.

ZORBAX StableBond (80Å) PrepHT									
Column Description	Column Size (mm)	Particle Size (µm)	Part Numbers				Price (\$)		
			SB-C18 USP L1	SB-C8 USP L7	SB-Aq	SB-CN USP L10	SB-Phenyl USP L11		
PrepHT (Cartridge) *	21.2 x 250	7	877250-102	877250-106	877250-114	877250-105	877250-112	2,426	
	21.2 x 150	7	877150-102	877150-106	877150-114			1,897	
	21.2 x 150	5	870150-902	870150-906	870150-914			1,930	
	21.2 x 100	5	870100-902	870100-906	870100-914			1,430	
	21.2 x 50	5	870050-902	870050-906	870050-914			935	
PrepHT Guard Cartridge**	17 x 7.5	5	820212-920	820212-915	820212-933	820212-933	820212-915	253	
ZORBAX StableBond (300 Å) PrepHT									
Column Description	Column Size (mm)	Particle Size (µm)	Part Numbers						
			300SB-C18 USP L1	300SB-C8 USP L7	300SB-C3	300SB-CN USP L10			
PrepHT (Cartridge) *	21.2 x 250	7	897250-102	897250-106	897250-109	897250-105		2,426	
	21.2 x 150	7	897150-102	897150-106	897150-109			1,897	
	21.2 x 150	5	895150-902	895150-906	895150-909			1,930	
	21.2 x 100	5	895100-902	895100-906	895100-909			1,430	
	21.2 x 50	5	895050-902	895050-906	895050-909			935	
PrepHT Guard Cartridge**	17 x 7.5	5	820212-921	820212-918	820212-924	820212-924		253	
ZORBAX Eclipse XDB and Bonus-RP PrepHT									
Column Description	Column Size (mm)	Particle Size (µm)	Part Numbers		Price (\$)		Part Numbers	Price (\$)	
			XDB-C18 USP L1	XDB-C8 USP L7			Bonus-RP		
PrepHT (Cartridge) *	21.2 x 250	7	977250-102	977250-106	2,426		878250-101	4,326	
	21.2 x 150	7	977150-102	977150-106	1,897		878150-101	3,032	
	21.2 x 150	5	970150-902	970150-906	1,930		868150-901	3,532	
	21.2 x 100	5	970100-902	970100-906	1,430		868100-901	2,412	
	21.2 x 50	5	970050-902	970050-906	935		868050-901	1,792	
PrepHT Guard Cartridge**	17 x 7.5	5	820212-925	820212-926	253		820212-928	253	
ZORBAX Extend PrepHT									
Column Description	Column Size (mm)	Particle Size (µm)	Part Numbers						
			Extend						
PrepHT (Cartridge) *	21.2 x 150	5	770150-902					3,032	
	21.2 x 100	5	770100-902					2,412	
	21.2 x 50	5	770050-902					1,792	
PrepHT Guard Cartridge**	17 x 7.5	5	820212-930					253	
ZORBAX Original PrepHT									
Column Description	Column Size (mm)	Particle Size (µm)	Part Number	Price (\$)	Part Numbers			Price (\$)	
			Sil		NH ₂	C18 (ODS)	C8	CN	
PrepHT (Cartridge) *	21.2 x 250	7	877952-101	1,687	877952-108	877952-102	877952-106	877952-105	2,320
ZORBAX Rx PrepHT									
Column Description	Column Size (mm)	Particle Size (µm)	Part Numbers	Price (\$)			Part Numbers	Price (\$)	
			Rx-Sil				Rx-C18 (ODS)		
PrepHT (Cartridge) *	21.2 x 250	7	877250-101	1,687			877967-102	2,426	
PrepHT Guard Cartridge **	17 x 7.5	5	820212-919	253			820212-914	253	
Accessories for PrepHT Hardware									
Description	Part Numbers								
Guard Hardware Kit	820444-901								210
PrepHT End Fittings	820400-901								226
Replacement Seals	820385-901								48

* All columns need PrepHT end fittings 820400-901.

** All guard cartridges are sold 2/pk. They need Guard Hardware Kit 820444-901, which contains guard column fitting, seal insertion tool (seal holder and seal pusher) and 1 polymeric seal. 30 mm and 50 mm I.D. columns available as custom columns.

The PerfectFit for the Agilent 1100 Purification System



ZORBAX PrepHT columns are a PerfectFit with the Agilent 1100 Series purification system, providing a total solution for purification needs. PrepHT columns can be used conveniently with the Agilent 1100 purification system at flow rates up to 100 mL/min.

The combination of PrepHT columns and Agilent's 1100 Series purification system offers the industry's most flexible and accurate high-throughput purification solutions. These solutions can be optimized for:

- The amount of sample to be isolated
- Optimum purity and recovery
- Desired throughput
- Analytical cost

For help with column selection:
Contact our technical specialists at 800-227-9770 (Option 4, then Option 2).

To order:

- Call 800-227-9770 (Option 1, then Option 1) and place your order directly.
- Or call your local authorized Agilent distributor.
- For even greater convenience, order online at www.agilent.com/chem/supplies

Figures 3 and 4: Sample courtesy of Boehringer Ingelheim Pharma KG.

Agilent's CombiHT line of preparative columns now has the name PrepHT. Agilent 21.2 mm preparative columns with traditional end fittings have been discontinued and replaced by corresponding PrepHT cartridge columns.

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

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**New
ZORBAX PrepHT
columns—**
another PerfectFit
innovation from
Agilent
Technologies

To see "how-to-install" videos and further information about Agilent PrepHT columns, go to www.agilent.com/chem and click "Columns and Accessories."



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