

Agilent HPLC Columns – Zorbax StableBond 300Å

- Designed for the acidic pH mobile phases used in peptide and protein separations
- Improve hydrophobic peptide separations
- Applications: Peptides, biopharmaceuticals, hydrophobic peptides, proteins at low pH

Zorbax 300StableBond columns are an ideal choice for the reproducible separations of proteins and peptides for two key reasons. First, wide-pore, 300Å columns are necessary for an efficient separation of proteins and peptides, or other large molecules, in order to allow these analytes to completely access the

bonded phase. Second, 300StableBond columns are unmatched in their durability at low pH, such as with the TFA containing mobile phases typically used. 300StableBond columns can also be used with formic acid and acetic acid mobile phase modifiers.

Zorbax StableBond Column Specifications

Bonded Phase	Pore Size	Surface Area	Temp Limits*	pH Range	Endcapped	Carbon Load
SB-C18	300Å	45m ² /g	90° C	1.0 - 8.0	No	2.8%
SB-C8	300Å	45m ² /g	80° C	1.0 - 8.0	No	1.5%
SB-C3	300Å	45m ² /g	80° C	1.0 - 8.0	No	1.1%
SB-CN	300Å	45m ² /g	80° C	1.0 - 8.0	No	1.2%

*StableBond columns are designed for optimal use at low pH. At pH 6-8, highest column stability for all silica-based columns is obtained by operating at temperatures <40° C and using low buffer concentrations in the range of 0.01 - 0.02M.

At mid-range pH, Eclipse XDB and Bonus-RP are recommended.

300Å Zorbax StableBond Columns

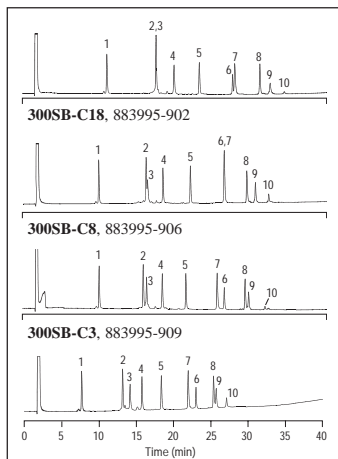
Dimensions (mm)	Particle Size (µm)	(USP L1)	(USP L7)	(USP L10)	
		300SB-C18	300SB-C8	300SB-CN	SB-C3
4.6 x 250	5	880995-902	880995-906	880995-905	880995-909
4.6 x 150	5	883995-902	883995-906	883995-905	883995-909
4.6 x 50	5	860950-902	860950-906	860950-905	860950-909
4.6 x 150	3.5	863973-902	863973-906	863957-905	863973-909
4.6 x 100	3.5	861973-902	861973-906		
4.6 x 50	3.5	865973-902	865973-906	865973-905	865973-909
3.0 x 150	3.5		863974-306		
3.0 x 100	3.5		861973-306		
2.1 x 150	5	883750-902	883750-906	883750-905	883750-909
2.1 x 150	3.5		863750-906		
2.1 x 100	3.5	861775-902	861775-906		
2.1 x 50	3.5	865750-902	865750-906		
1.0 x 150	3.5	863630-902	863630-906		
1.0 x 50	3.5	865630-902	865630-906		
1.0 x 17, 3/pk	5	5185-5920	5185-5920		

Guard Cartridges (requires hardware kit)

4.6 x 12.5, 4/pk	5	820950-921	820950-918	820950-923	820950-924
2.1 x 12.5, 4/pk	5	821125-918	821125-918	821125-924	821125-924

Guard Hardware Kit (fits both 4.6 x 12.5 and 2.1 x 12.5 cartridges)

Hardware kit	-	820888-901	820888-901	820888-901	820888-901
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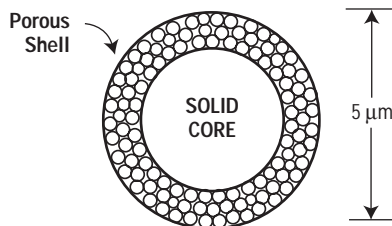


The 300SB-C18, C8, C3 and CN bonded phases all provide a different separation of this group of polypeptides. This adds an important parameter for quickly optimizing protein separations. The 300SB-CN column offers unique selectivity for more hydrophilic polypeptides.

Column Conditions Zorbax 300SB

Mobile phase:	Linear gradient, 25-70% B in 40 min.
Flow rate:	1.0mL/min
Temperature:	60° C
Sample:	3µg each protein
	1. RNase 6. CDR
	2. Insulin 7. Myoglobin
	3. Cytochrome C 8. Carbonic Anhydrase
	4. Lysozyme 9. S-100β
	5. Parvalbumin 10. S-100α

Zorbax Poroshell 300SB Columns for Bioanalytical Chemistry



- For very large, heterogeneous proteins, Zorbax Poroshell C3 or C8 columns give the best peak shape in a separation

The revolutionary new Poroshell 5µm particle combines a solid core with a 300Å porous surface layer bonded with SB-C18. The result is a highly efficient particle for rapid, high-resolution separations of proteins and other large molecules. Large and/or heterogeneous proteins have more complex interactions with the surface of the column packing and show improved peak shapes and resolution on superficially porous particles bonded with shorter phases such as C3 and C8. The simplified interaction of protein with the surface of the packing is the reason for improved chromatography.

300Å Zorbax StableBond Columns

Dimensions (mm)	Particle Size (µm)	Poroshell 300SB-C18	Poroshell 300SB-C8	Poroshell 300SB-C3
2.1 x 75	5	660750-902	660750-906	660750-909
1.0 x 75	5	661750-902	661750-906	661750-909

Guard Cartridges (requires hardware kit)

2.1 x 12.5, 4/pk	5	821075-920		
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Guard Hardware Kit (fits both 4.6 x 12.5 and 2.1 x 12.5 cartridges)

Hardware kit	-	820888-901		
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