BioSuite SEC HPLC and UHPLC Columns

Description	Matrix	Diameter Width	Diameter Length	Column Volume	Suggested Volume Load for Maximum Multicomponent Resolution*	Multicomponent Resolution**	P/N
BioSuite 125Å, 4 µm UHR SEC	Silica	4.6 mm	300 mm	4.98 mL	Less than 8 mg/mL	Less than 40 µL	186002161
BioSuite 250Å, 4 µm UHR SEC	Silica	4.6 mm	300 mm	4.98 mL	Less than 8 mg/mL	Less than 80 µL	186002162
BioSuite UHR Guard SEC	Silica	4.6 mm	35 mm	—	—	—	186002163
BioSuite 125Å, 5 µm HR SEC	Silica	7.8 mm	300 mm	14.33 mL	Less than 8 mg/mL	Less than 200 µL	186002164
BioSuite 250Å, 5 µm HR SEC	Silica	7.8 mm	300 mm	14.33 mL	Less than 8 mg/mL	Less than 200 µL	186002165
BioSuite 450Å, 8 µm HR SEC	Silica	7.8 mm	300 mm	14.33 mL	Less than 8 mg/mL	Less than 200 µL	186002166
BioSuite HR Guard SEC	Silica	6.0 mm	40 mm	—	—	—	186002167
BioSuite 125Å, 10 µm SEC	Silica	7.5 mm	300 mm	13.25 mL	Less than 8 mg/mL	Less than 200 µL	186002168
BioSuite 125Å, 13 µm SEC	Silica	21.5 mm	300 mm	108.9 mL	Less than 8 mg/mL	Less than 1.6 mL	186002169
BioSuite 250Å, 10 µm SEC	Silica	7.5 mm	300 mm	13.25 mL	Less than 8 mg/mL	Less than 200 µL	186002170
BioSuite 250Å, 13 µm SEC	Silica	21.5 mm	300 mm	108.9 mL	Less than 8 mg/mL	Less than 1.6 mL	186002171
BioSuite 450Å, 13 µm SEC	Silica	7.5 mm	300 mm	13.25 mL	Less than 8 mg/mL	Less than 200 µL	186002172
BioSuite 450Å, 17 µm SEC	Silica	21.5 mm	300 mm	108.9 mL	Less than 8 mg/mL	Less than 1.6 mL	186002173
BioSuite Guard SEC	Silica	7.5 mm	75 mm	—	—	—	186002174
BioSuite Guard SEC	Silica	21.5 mm	75 mm	—	—	—	186002175

* Using a BSA protein standard in a 50 mM phosphate buffer containing salt (either 0.1 M NaCl or 0.1 M Na_2SO_4) eluent. Useful protein mass loads will vary depending upon separation eluent, complexity of sample, and on the type of proteins contained in mixture. In general, maximum component resolution is obtained by injecting the smallest possible volume of a dilute protein solution.

** Operating flow rates for BioSuite Ultra-High Resolution (UHR) SEC Columns (4.6 mm I.D.) are from 0.1–0.4 mL/min. Use of an HPLC system (e.g. Waters Alliance HPLC System) capable of operating at these flows is essential for optimal UHR SEC Column performance.

PROTEIN-PAK SIZE-EXCLUSION HPLC COLUMNS

Protein-Pak Packings are based on a 10 µm diol-bonded silica and are available in a selection of pore sizes and column configurations.

The Protein-Pak Size-Exclusion Columns can be expected to resolve proteins that differ in molecular weight by a factor of two and to distinguish proteins differing by as little as 15% in molecular weight. The degree of resolution is more dependent on the sample mass and volume than the interaction between the sample and the stationary phase. Ideally, there should be no interaction between the stationary phase and the sample molecules. Secondary interactions are most often ionic and can, therefore, be reduced by increasing the ionic strength of thee mobile phase. Typical, salt concentrations range to 0.2-0.5 M NaCl. It may also be useful in some cases to consider adding 10-20% methanol to eliminate hydrophobic and other hydrogen-bonding interactions.

Ordering Information

Protein-Pak SEC HPLC Columns and Guards

Steel Column	Dimension	MW Range	P/N
Protein-Pak 60	7.8 x 300 mm	1,000–20,000	WAT085250
Protein-Pak 60	19 x 300 µm	1,000–20,000	WAT025830
Protein-Pak 125	7.8 x 300 mm	2,000–80,000	WAT084601
Protein-Pak 125	19 x 300 mm	2,000–80,000	WAT025831
Protein-Pak 300SW	7.5 x 300 mm	10,000–300,000	WAT080013
Protein-Pak 125 Sentry Guard Column, 3.9 x 20 mm, 2/pk (requires holder)			186000926
Sentry Universal Guard Column Holder			WAT046910

Glass Column	Dimension	MW Range	P/N
Protein-Pak 200SW	8.0 x 300 mm	500–60,000	WAT011786
Protein-Pak 300SW	8.0 x 300 mm	10,000–300,000	WAT011787