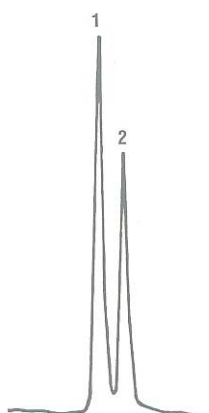


APPLICATION NEWS

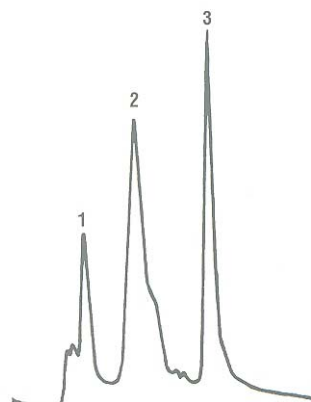
Chromegapore Molecular Size Exclusion HPLC Columns

ES Industries is pleased to offer a series of Chromegapore size exclusion columns available in a wide variety of particle and pore sizes. Chromegapore columns are available in Silica, TMS bonded to silica, and Diol bonded to silica. Silica and TMS Chromegapore columns are recommended for the analysis of polymers that are organic soluble. Chromegapore Diol columns are recommended for samples that are water soluble, such as proteins, peptides, and water soluble synthetic polymers. These columns are silica based and functionalized columns are bonded phases and are compatible with all organic solvents. Chromegapore packings can be packed into columns of various dimensions (complete list of particle sizes, pore sizes and column dimensions are available on the website www.esind.com), however the 30cm X 7.5cm column is recommended for most applications.



Polymers
 Column: 30 cm x 4.6 mm
 Packing: Chromegapore MSE-SI-100

Mobile phase: THF
 Flow rate: 1.5 mL/min.
 1. Polystyrene 37,000 MW
 2. Polystyrene 2,700 MW



Serum Proteins
 Column: 25 cm x 7.8 mm
 Packing: Chromegapore Diol 5 μ , 300 A
 Mobile phase: 0.1 M Phosphate Buffer + 0.1 M Morpholine, pH = 7
 Flow rate: 1 mL/min.
 Detection: 280 nm
 1. Human IgM (MW-900,000)
 2. Human IgG (MW-160,000)
 3. Leu-enkephalin (MW-500)

Properties and separation ranges for Chromegapore Diol
 Molecular weight of sample

Particle Size (μ)	Pore Size (\AA)	Molecular weight of sample		
		Globular proteins	Dextrans	Polyethylene glycols and oxides
5	120	5,000 – 150,000	1,000 – 30,000	500 – 15,000
5	300	10,000 – 500,000	2,000 – 70,000	1,000 – 35,000
5	500	20,000 – 10,000,000	4,000 – 500,000	2,000 – 250,000

Chromegapore MSE Silica				
Particle Size (μ)	Pore Size (Å)	Length (cm)	Internal Diameter 4.6mm	Internal Diameter 7.5mm ID
5	60	30	165211-MSE60	169211-MSE60
5	100	30	165221-MSE100	169221-MSE100
5	300	30	165231-MSE300	169231-MSE300
5	500	30	165241-MSE500	169241-MSE500
5	1000	30	165251-MSE1000	169251-MSE1000
5	4000	30	165261-MSE4000	169261-MSE4000

Chromegapore MSE TMS				
Particle Size (μ)	Pore Size (Å)	Length (cm)	Internal Diameter 4.6mm	Internal Diameter 7.5mm ID
5	60	30	165211-MSET60	169211-MSET60
5	100	30	165221-MSET100	169221-MSET100
5	300	30	165231-MSET300	169231-MSET300
5	500	30	165241-MSET500	169241-MSET500
5	1000	30	165251-MSET1000	169251-MSET1000
5	4000	30	165261-MSET4000	169261-MSET4000

Chromegapore MSE Diol				
Particle Size (μ)	Pore Size (Å)	Length (cm)	Internal Diameter 4.6mm	Internal Diameter 7.5mm ID
5	60	30	165211-MSED60	169211-MSED60
5	100	30	165221-MSED100	169221-MSED100
5	300	30	165231-MSED300	169231-MSED300
5	500	30	165241-MSED500	169241-MSED500
5	1000	30	165251-MSED1000	169251-MSED1000
5	4000	30	165261-MSED4000	169261-MSED4000