

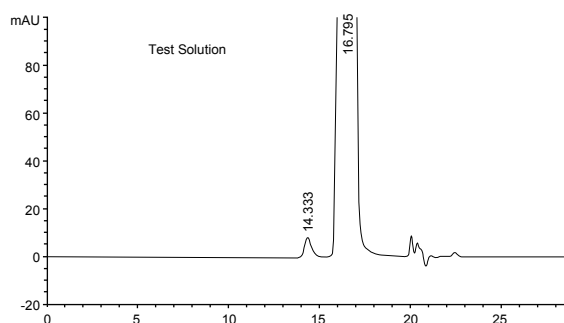
Xtimate® SEC

Xtimate® SEC (size exclusion chromatography), also known as “global protein hydrophilic modified silica column”, is made from ultra-high purity, stable silica bonded with hydrophilic polymer and diol functional groups. This double bonding mechanism, which makes possible of nonspecific adsorption of high Mw polymers, proteins, biological enzymes, polypeptides and other biological samples, can be applied to separating water-soluble polymers from biomacromolecules.

- Ultra-high purity, stable silica bonded with hydrophilic polymer and diol functional groups.
- 5 µm or 3 µm silica microsphere, high separation efficiency
- 120 Å minibore columns fit for analysis of polar compounds such as cephalosporins; 300Å ones fit for biomacromolecules such as proteins and polypeptides.
- Five pore sizes: 120 Å, 300 Å, 500 Å, 700 Å and 1000 Å.

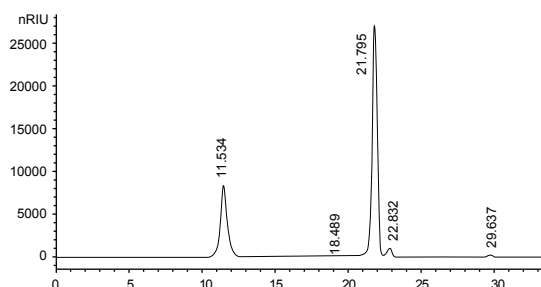
Phase	Xtimate® SEC-120	Xtimate® SEC-300	Xtimate® SEC-500	Xtimate® SEC-700	Xtimate® SEC-1000
Materials	Silica particles bonding hydrophilic polymer	Silica particles bonding hydrophilic polymer	Silica particles bonding hydrophilic polymer	Silica particles bonding hydrophilic polymer	Silica particles bonding hydrophilic polymer
Particle Size(µm)	3, 5	3, 5	5	5	5
Pore Size(Å)	120	300	500	700	1000
Protein Molecule Range	500-150,000	5,000-1,250,000	10,000-3,500,000	15,000-5,000,000	50,000-7,500,000
Soluble Polymer Molecule Mass Range	500-25,000	1,000-100,000	2,000-500,000	2,500-500,000	5,000-1,500,000
Maximum Pressure	~4,500	~3,500	~3,000	~3,000	~3,000
pH Range	2-7.5 (7.5-9.5 for short time)	2-7.5 (7.5-9.5 for short time)	2-7.5 (7.5-9.5 for short time)	2-7.5 (7.5-9.5 for short time)	2-7.5 (7.5-9.5 for short time)
Range of Salt Concentration	20 mM-2.0 M	20 mM-2.0 M	20 mM-2.0 M	20 mM-2.0 M	20 mM-2.0 M
Highest Temperature(°C)	~80°C	~80°C	~80°C	~80°C	~80°C
Mobile Phase	Aqueous or organic phase	Aqueous or organic phase	Aqueous or organic phase	Aqueous or organic phase	Aqueous or organic phase

Sex Hormone in Cosmetics



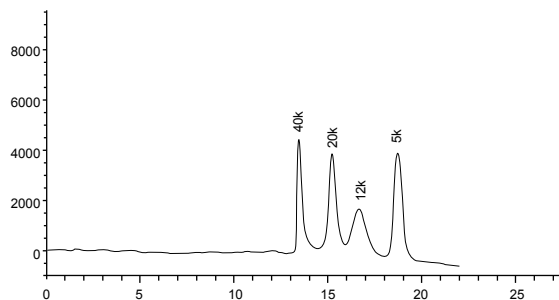
Column:	Xtimate® SEC-120, 3 µm, 300 x 7.8 mm
Mobile Phase:	Acetic acid/acetonitrile/ 0.1%arginine=15/20/65
Flow Rate:	0.5 mL/min
Temperature:	35°C
Detector:	276 nm
Injection Volume:	100 µL

Iron Dextran



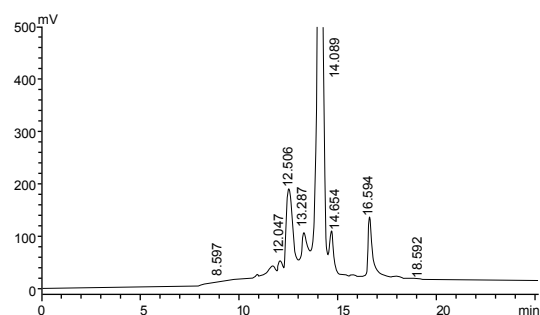
Column:	Xtimate® SEC-300, 5 µm, 300 x 7.8 mm
Mobile Phase:	Dissolve 7.1g Na ₂ SO ₄ to 1000 mL water, filter
Flow Rate:	0.5 mL/min
Temperature:	Ambient
Detector:	RID
Injection Volume:	20 µL

Analysis of Molecular Weight of Polyethylene Glycol



Column:	Xtimate® SEC-300, 5 µm, 300 x 7.8 mm
Mobile Phase:	Ultrapure Water
Flow Rate:	1.0 mL/min
Temperature:	40°C, RID: 40°C
Detector:	RID
Injection Volume:	20 µL

Cefoxitin Sodium



Column:	Xtimate® SEC-120, 5 µm, 300 x 7.8 mm
Mobile Phase:	Phosphate buffer/acetonitrile=95/5
Flow Rate:	0.9 mL/min
Temperature:	30°C
Detector:	232 nm
Injection Volume:	20 µL

Ordering Information

Xtimate® SEC

Bonded phase	Particle size	Column ID(mm)	Column Length (mm)	
			250	300
SEC-120	3 µm	4.6	00237-21043	00237-21044
		7.8	00237-21051	00237-21052
	5 µm	4.6	00237-31043	00237-31044
		7.8	00237-31051	00237-31052
SEC-300	3 µm	4.6	00237-23043	00237-23044
		7.8	00237-23051	00237-23052
	5 µm	4.6	00237-33043	00237-33044
		7.8	00237-33051	00237-33052
SEC-700	5 µm	4.6	00237-34043	00237-34044
		7.8	00237-34051	00237-34052
SEC-1000	5 µm	4.6	00237-35043	00237-35044
		7.8	00237-35051	00237-35052

Don't see your needed size or format? Contact Welch or your local distributor for other dimensions.