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PRODUCT SPECIFICATION SHEET

Product Name: Toyopearl® MegaCap II SP-550EC (strong cation exchange resin for peptide and small protein separations)



Part Numbers:

21804	Toyopearl MegaCap II SP-550EC, 35 µm, 100 mL
21805	Toyopearl MegaCap II SP-550EC, 35 µm, 250 mL
21806	Toyopearl MegaCap II SP-550EC, 200 µm, 1 L
21807	Toyopearl MegaCap II SP-550EC, 200 µm, 5 L
21870	ToyoScreen MegaCap II SP-550EC, 1 mL x 6 ea.
21871	ToyoScreen MegaCap II SP-550EC, 5 mL x 6 ea.
21400	ToyoScreen Column Holder
42194	ToyoScreen Column Holder with fittings

Product Description: Toyopearl® is a methacrylic polymer incorporating high mechanical and chemical stability. Resins are available as non-functionalised “HW” series resins for size exclusion separations, and derivatised with surface chemistries for alternative modes of chromatography such as ion exchange, hydrophobic interaction or affinity separations.

Toyopearl® MegaCap II SP-550EC chromatographic resin is designed for cation exchange chromatography of peptides and small proteins. This chromatographic mode separates molecules on the basis of ionic interactions between the sample and the resin. The separation is usually accomplished in buffered aqueous solution with a gradient of increasing ionic strength. Alternatively, pH adjustment may be used for control of elution.

Formulation: Particulate resin (spherical), available in particle sizes (mean diameter):
 100 - 300 µm = “EC” grade
 Supplied as slurry in 20 % ethanol (v/v).

Physicochemical Specifications:	Appearance	White resin slurry which settles upon standing
Particle Size Distribution (>80 % within range)		100 – 300 µm for EC grade
Exclusion Limit		0.8 - 3.2 x10 ⁵ Dalton (Polyethylenoxide)
Mean Pore Diameter		300 Å
Pressure drop across the column		max. 7 bar (recommended)
Operating Linear Flowrate		normally 10 – 3000 cm/hour
Ion Exchange Capacity		0.15 ± 0.05 meq/mL
Insulin Adsorption Capacity		127.5 ± 27.5 mg/mL
Bacterial Count		≤ 100 CFU/mL
Endotoxin Concentration		≤ 10.0 endotoxin units/mL
Pack sizes and type		100 mL, 250 mL, 1 L, 5 L, 50 L Packed in virgin Polyethylene container with Polypropylene cap.
Resin Volume per Container		The indicated volume is the settled resin volume.
Shipping Solvent		72 % (v/v) slurry in 20 % (v/v) ethanol

Long Term Storage Conditions	20 % (v/v) ethanol
Cleaning in Place / Sanitization	0.5 M NaOH or 0.1 M HCl
Foreign Substance	not observed, no visual evidence
Eluable Matter	< 0.1 %
Shelf Life Stability	Minimum 5 years