1. Description

Seplife®MA Large Scale/75 is a multimodal strong base anion agarose resin with a different selectivity compared to IEX agarose resins. Multimodal chromatography includes ion exchange, hydrophobic, and hydrogen bonding forces.

- Seplife® MA Large Scale/75 is suitable for fast elution of biomolecules in bind / elute mode, as well as mAbs aggregates and fragments removal in flow through mode.

- High dynamic binding capacity is achieved at higher conductivity.

- Designed for large scale purification thanks to the high dynamic binding capacity and very high flow rates.

- High stability to CIP (cleaning in place) up to 1M NaOH.

- Regulatory Support File (RSF) is available for Seplife® MA Large Scale/75.

Seplife® MA Large Scale/75 is a multimodal strong base anion chromatographic resin based on highly cross-linked agarose (6%) and has a narrow particle size (45-125 micron)

2. Properties

Product	Seplife®MA Large Scale/75
Appearance	White to off white spherical beads
Type	Multimodal Strong Base Anion agarose
Matrix	Highly cross-linked 6% agarose
Ion exchange capacity (mmol/ml)	0.09-0.12
pH ligand fully charged	Positively charged at pH<11
Particle size range(μm)	45-125
pH stability	3-12 (operational), 2-14 (CIP)
Chemical Stability	Stable in common aqueous solutions: 1M NaOH, 1M acetic acid. AVOID the use of Oxidizing agents, anionic detergents
Flow rate* (cm/h)	max 1000cm/h
10% Dynamic binding capacity (mg /ml)**	≥65(BSA)
Shipped as	20% ethanol slurry

*Testing conditions: Chromatography column 16mm×200mm; column bed height 20cm; temperature 25°C; mobile phase water.

**Testing conditions: Binding buffer: 50mM acetate + 0.25M NaCl, pH 4.75; Elution buffer: 50mM acetae + 1.0M NaCl, pH 7.0, Sample : bovine serum albumin, Column: 8mm*100mm, room temperature, Retention time 2 minute.

3. Instructions

3.1 Column packing

Column packing should be done according to standard operating procedures. It is important to ensure that each material is at its working temperature, and the chromatography media may need to be degassed before column packing.

3.2 Equilibration

Equilibrate the column with at least 5 BV of the initial buffer solution until the conductivity and pH of the effluent remain constant.

3.3 Sample feeding

Samples are prepared in the equilibration buffer. Cloudy samples should be centrifuged and filtered before loading.

3.4 Elution

Elute with lower salt buffer. Keep the flow rate and buffer composition unchanged during elution.

3.5 Regeneration

Elute the reversible bound molecules with a low pH solution (such as 0.1M acetate buffer) and wash with at least 5 BV of the initial buffer until the conductivity and pH of the effluent remain constant.

3.6 Cleaning-In-Place (CIP)

1. For proteins bound by ionic bonds, backwash with 0.5-2 BV of 2M NaCl for 10-15 minutes.

2. For precipitated proteins, hydrophobically bound proteins or lipids, backwash with 1M NaOH at a flow rate of 150cm/h for 15-30min.

3. For proteins and lipids with strong hydrophobic binding, backwash with 2-4 BV of 1-5% n-propanol or 5-30% isopropanol. However, it should be noted that the concentration of the organic solvent should be gradually increased to avoid bubbles.

4. For nucleic acid, first wash with 2-5 BV of 0.1M acetate. Then wash with 1-2 BV of pH-neutral equilibration buffer solution. Finally, backwash with 1M NaOH at a flow rate of 150cm/h for 15-30min.

After cleaning, equilibrate the column with equilibration buffer solution at least 3 times the volume of the column bed until the pH and conductivity remain constant.

4. Storage

Sealed and stored at 4-30°C (preservation solution 20% ethanol), in a ventilated, dry and clean place. Do

not freeze.

5. Transportation

Avoid sunlight, rain, and heavy pressure during transportation. It is strictly forbidden to transport with toxic and hazardous materials.

6. Precautions

6.1 Samples must be clear of particles (centrifuge or filter before loading on the column) .

6.2 The sample and chromatography media must be thoroughly equilibrated with equilibration buffer before column chromatography can be performed.

6.3 The loaded column bed must have a flat surface with no channel flow and air bubbles, otherwise it should be re-loaded.

6.4 During the elution process, the flow rate should be strictly controlled.

6.5 During sample loading and the entire elution process, prevent the column surface from drying out.

6.6 This product should avoid contact with oxidants and avoid long exposure to air.

7. Ordering information

Product Name	References	Pack Size
Seplife® MA Large Scale/75	A5026302	25ml
	A5026303	100ml
	A5026304	500ml
	A5026305	1L
	A5026306	5L
	A5026307	10L

Production date: See label

Expiry date: 5 years, under proper storage conditions

Manufacturer: Sunresin New Materials Co. Ltd.

Add:No. 135, Jinye Rd, Xi'an Hi-tech Industrial Development Z

one, Shaanxi, 710076, China

www.seplite.com   www.sunresin.com

E-mail: info.lifescience@sunresin.com

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