Chromatography Resins for Protein Purification

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Pall Chromatography Resin Sections

Chromatography Resins Introduction

Chromatography continues to be an essential technology for the purification of biomolecules. Pall offers a line of chromatography resins ideal for protein purification applications (see Table 4.6). This broad line of chromatography products exhibits superior performance and is useful for affinity, ion exchange, size exclusion, and hydrophobic interaction chromatography (HIC). Unique mixed-mode sorbents also exist to provide solutions to current sample preparation challenges.

The resins Pall offers for small-scale applications are the same ones offered to our customers currently manufacturing biopharmaceuticals. The ability to scale up is essential for those working in drug discovery, development, and manufacturing. These resins can be used in varying size chromatography columns, as well as in batch mode for single or high throughput mode. This is ideal for quick preps or in situations where optimizing purification conditions is required.

Table 4.6
Chromatography Resins

Chromatography Type	Product Name	Description
Ion Exchange	Q Ceramic HyperD ® F	Strong anionic exchanger, binds negatively-charged target
	CM Ceramic HyperD F	Weak cationic exchanger
	DEAE Ceramic HyperD F	Weak anionic exchanger
	HyperCel STAR AX	Weak “salt tolerant” anionic exchanger
Affinity	Blue Trisacryl® M	Binds albumin
	Heparin HyperD M	Direct binding to targets that have an affinity for heparin
	Lysine HyperD	Direct binding to targets that have an affinity for lysine
	SDR HyperD	Detergent removal
Mixed Mode	MEP HyperCel	Uses several binding mechanisms including hydrophobic interactions
	HA Ultrogel®	Hydroxyapatite

	HEA HyperCel	Hydrophobic and electrostatic interactions
	PPA HyperCel	Hydrophobic and electrostatic interactions
HCIC	MEP HyperCel	Uses several binding mechanisms including hydrophobic interactions

Table 4.7
Available Separation Columns

Description	Column Value	Available from Pall
Glass Chromatography Column	0 to 900 mL	Yes
Disposable Chromatography Column	1 mL and 5 mL	Yes
Spin Filter	<1 mL	Yes
Deep Well Multi-Well Filter Plate	96 x <1 mL	Yes
Multi-Well Filter Plate	96 x <350 µL	Yes