

Base Matrices

Praesto® Pure

Non-functionalized agarose chromatography beads – ideal base matrices for production of affinity resins or for gel filtration of large molecules such as viruses or plasmids.



Praesto Pure chromatography media are plain agarose-based beads designed for large-scale biomolecule purification.

Praesto Pure resins are the ideal base matrices for production of affinity resins with minimal unspecific interaction and long functional life time.

Praesto Pure media are available in 45 μm , 65 μm and 90 μm particle sizes,

covering use in preparative high-performance separations, intermediate applications, and in processing of large volumes in limited time frames.

Praesto Pure resins can also be used directly for purification by gel filtration of various large biomolecules such as viruses and plasmids.

Praesto Pure resins are based on highly cross-linked agarose. They offer very good flow and pressure drop characteristics, excellent chemical and physical stability, and excellent recoveries of active proteins.

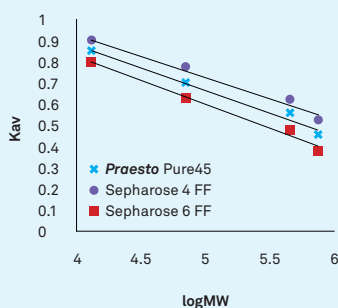
Pre-activated resins are also available in a variety of source chemistries.

Key Performance Benefits:

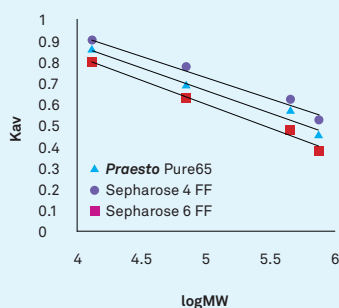
- ◆ Novel 45 μm , 65 μm and 90 μm non-functionalized, agarose-based chromatography beads
- ◆ Ideal base matrices for development of affinity chromatography resins
- ◆ Gel filtration of large biomolecules (e.g. viruses, plasmids)
- ◆ Low non-specific interactions and excellent recoveries
- ◆ High-flow agarose with excellent chemical and physical stability

Figure 1: Selectivity (K_{av}) Curves

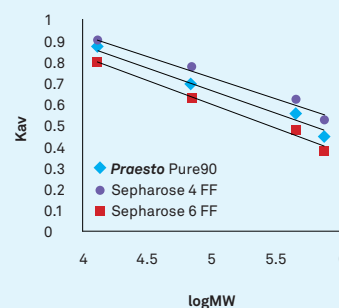
Selectivity curve of **Praesto** Pure45, compared with GE Sepharose 4 Fast Flow and GE Sepharose 6 Fast Flow, obtained with RNase, Bovine Serum Albumin, Ferritin and Thyroglobulin.



Selectivity curve of **Praesto** Pure65, compared with GE Sepharose 4 Fast Flow and GE Sepharose 6 Fast Flow, obtained with RNase, Bovine Serum Albumin, Ferritin and Thyroglobulin.



Selectivity curve of **Praesto** Pure90, compared with GE Sepharose 4 Fast Flow and GE Sepharose 6 Fast Flow, obtained with RNase, Bovine Serum Albumin, Ferritin and Thyroglobulin.



Praesto Pure: Typical Physical & Chemical Characteristics

Matrix	Highly cross-linked agarose		
Exclusion Limit, Globular Proteins	10 ⁷ daltons		
Average Particle Size (d _{50V}), µm	45	65	90
Flow Velocity cm/h at 3 bar in a 2.6 x 20cm Column (packed at 4 bar)	> 200	> 400	> 800
Operating pH Stability	(Short-term)	pH 2-14	
	(Long-term)	pH 3-13	
Working Temperature	4-30°C		
Chemical Stability	All commonly used aqueous buffers, 2M NaOH, 8M urea, 6M guanidine HCl, 30% isopropanol, 70% ethanol, 30% acetonitrile and commonly used detergents		
Storage	20% ethanol at 4-30°C		

Figure 2: Pressure/Flow Curves

Praesto Pure Chromatographic Performance

The rigidity of **Praesto** resins allows for high flow velocities below pressure limits. Compared to older agarose-based resins, pressure-flow performance is greatly improved, and exceeds that of other high flow agarose resins of similar particle size (Fig. 2). **Praesto** Pure resins demonstrate increased throughput and productivity.

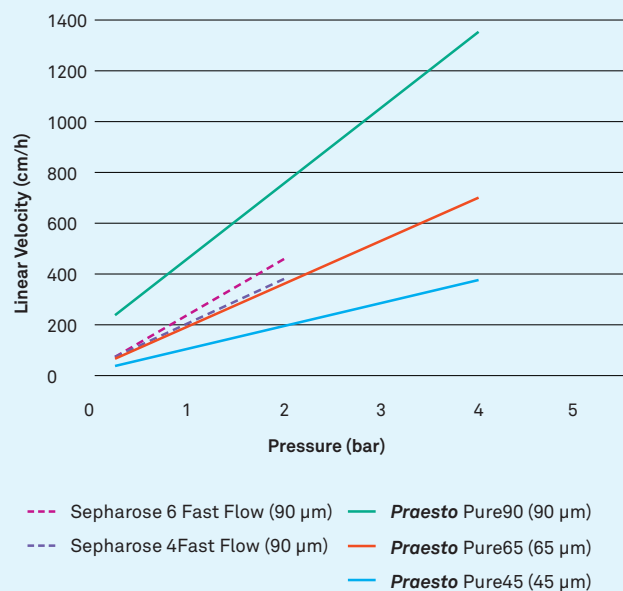
Praesto Pure Ordering Information

PRODUCT	PACK SIZE	ORDER NUMBER
Praesto Pure45	25 ml	PR00240-166
Praesto Pure45	100 ml	PR00240-164
Praesto Pure45	500 ml	PR00240-165
Praesto Pure65	25 ml	PR00260-166
Praesto Pure65	100 ml	PR00260-164
Praesto Pure65	500 ml	PR00260-165
Praesto Pure90	25 ml	PR00290-166
Praesto Pure90	100 ml	PR00290-164
Praesto Pure90	500 ml	PR00290-165

Figure 2: The figure shows the pressure flow properties of **Praesto** Pure90, **Praesto** Pure65, **Praesto** Pure45, Sepharose 6 Fast Flow and Sepharose 4 Fast Flow.

Praesto Pure90, **Praesto** Pure 65, **Praesto** Pure45 were packed at 4 bar to a bed height of 20 cm in a HiScale™ 26/40 column.

Sepharose 6 Fast Flow and Sepharose 4 Fast Flow were packed at 2 bar to a bed height of 20 cm in a HiScale™ 26/40 column.



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