Activated PROSEP® Chromatography Media

For covalent attachments of proteins and other molecules.

The PROSEP matrix which is already widely used in its various forms for the purification of therapeutic proteins, is now available in a number of pre-activated types, for covalent attachments of proteins and other molecules.

PROSEP is porous glass permeated by interconnecting pores of uniform and precisely controlled size. It exhibits chemical and mechanical stability and is insoluble over a range of conditions such as low pH, exposure to detergents, buffers of varying ionic strengths, various organic solvents and differing pressures. The matrix is incompressible and extremely durable, and does not shrink or swell in different solutions. It has a narrow pore size distribution (80% of the pores show a deviation of less than ± 10% from the nominal pore diameter) coupled with a large internal surface area. The pore diameter itself is selectable within a wide range of 70 Å - 3000 Å.

Description

Activated PROSEP is offered with two different surface chemistries, PROSEP-5CHO and PROSEP-9CHO, for covalent attachment of proteins and other molecules. Pore diameters of 500 Å and 1000 Å are offered for each chemistry as standard product. Other pore sizes within the range of 70 Å - 3000 Å are available on request. Listed below is the binding capacity of PROSEP affinity adsorbents for human IgG. The density of the dry beads varies slightly between batches according to the pore size used. Precise data is indicated on the Certificate of Analysis which is enclosed with the finished product.

PROSEP - 5CHO

Proteins and other molecules with primary amino groups can be co-valently bound to PROSEP-5CHO. The immobilized ligand can then be used for the immunoaffinity purification of the ligate. The density of the ligand on this product can be varied from zero to saturation with very little non-specific binding when used in immunoaffinity purification of the ligate. The kinetics for coupling human IgG and the coupling efficiency onto this matrix are shown in Figures 1 and 2 respectively.

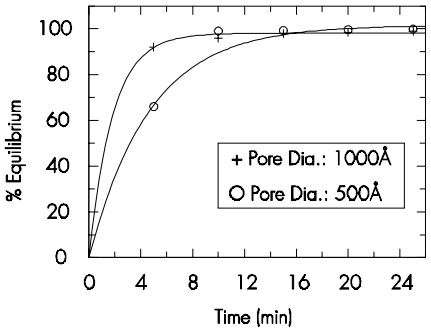

Figure 1: Kinetics for coupling Human IgG to PROSEP -5CHO

Binding capacity of Activated PROSEP for Human Polyclonal IgG

ACTIVATED PROSEP	BINDING CAPACITY	
	(mg/g)	(mg/ml)
PROSEP-5CHO 500 Å	45 - 100	15 - 25
PROSEP-5CHO 1000 Å	30 - 40	10 - 13
PROSEP-9CHO 500 Å	75 - 120	25 - 30
PROSEP-9CHO 1000 Å	35 - 45	10 - 15

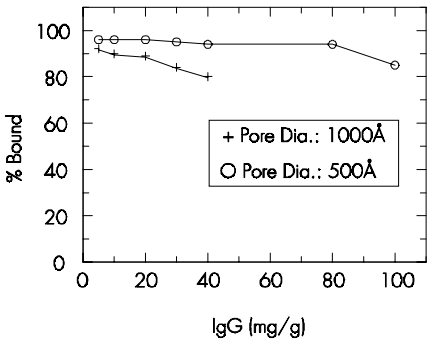

Figure 2: Coupling efficiency of Human IgG to PROSEP -5CHO

PROSEP -9CHO

Proteins and other molecules with primary amino groups can be co-valently coupled to PROSEP-9CHO. This product is especially useful for the covalent attachment of molecules with a low binding efficiency to other affinity matrices. The density of the ligand on this product is not recommended to be much lower than the saturation binding capacity. The immobilized molecules on this matrix can be used in immunoaffinity or immunoadsorption applications. Figure 3 shows the reaction time for the binding of human IgG to PROSEP-9CHO. The coupling efficiency for human IgG is shown in Figure 4.

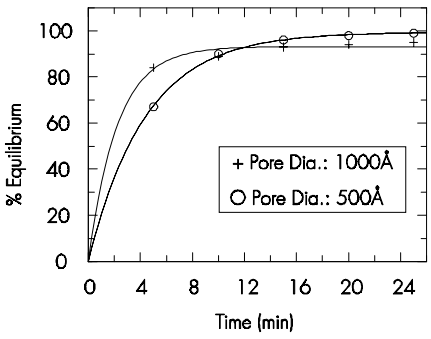

Figure 3: Kinetics for coupling Human IgG to PROSEP -9CHO

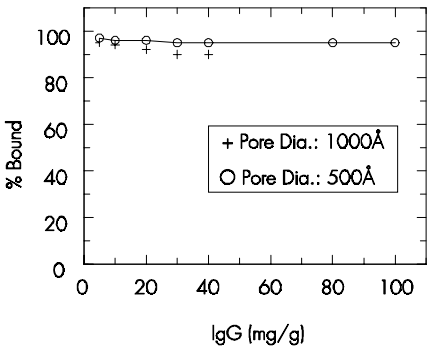

Figure 4: Coupling Efficiency of Human IgG to PROSEP -9CHO

Ordering Information

PRODUCT	50 ml	100 ml	500 ml
PROSEP-5CHO 500 Å 1000 Å	 115100426 113100426	 115100427 113100427	 115100429 113100429
PROSEP-9CHO 500 Å 1000 Å	 115300426 113300426	 115300427 113300427	 115300429 113300429

Millipore Chromatography

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