Datasheet for ABIN1536561

Protein L Resin

8 Publications

Go to Product page

Overview

Quantity:	2.5 mL
Target:	Protein L
Reactivity:	Peptostreptococcus magnus
Application:	Affinity Chromatography (AC), Purification (Purif)

Product Details

Purpose:	Protein L Resin is an affinity chromatography medium designed for easy, one-step purification of classes, subclasses and fragments of immunoglobulins from biological fluids and from cell culture media.
Specificity:	Ligand Highly purified protein L Number of Ig binding sites per ligand 5 MW of ligand Approximately 42 kDa PI of ligand 4.57 Degree of substitution Approximately 2 mg protein L/ml settled resin Static binding capacity >15 mg rabbit IgG/ml settled resin Matrix spherical Agarose, 4% cross-linked Average particle size 90 µm (45 - 165 µm) Storage solution 1×PBS containing 20% ethanol Sanitization Washing of the packed column with 70% ethanol
Characteristics:	The highly purified protein L ligand is coupled to 4% highly cross-linked agarose. The coupling is optimized to give high binding capacity for immunoglobulins. The static binding capacity of Protein L Resin is greater than 15 mg rabbit IgG/ml settled resin. The dynamic binding capacity will vary depending on several factors such as target antibody, flow rate etc.

Product Details

Bead Ligand:	Protein L
Bead Matrix:	Agarose beads
Bead Size:	90 µm

Target Details

Target:	Protein L
Abstract:	Protein L Products
Background:	Protein L, first isolated from the surface of bacterial species Peptostreptoccus magnus, binds immunoglobulin through κ light chain interaction. Protein L binds a wider range of Ig classes and subclasses than other antibody-binding proteins such as protein A or protein G. It can bind to all classes of Ig (i.e., IgG, IgM, IgA, IgE, and IgD) and also the single chain variable fragments (Scfv) and Fab fragments.

Application Details

Comment:	High temperature heating is not recommended. The agarose melts above 65°C.
Reagent Preparation:	Water and chemicals used for buffer preparation should be of high purity. It is recommended filtering the buffers by passing them through a 0.45 µm filter before use. Binding/Wash Buffer: 20 mM Na2HPO4, 0.15 M NaCl, pH 8.0 Elution Buffer: 0.1 M glycine, pH 2.5 Neutralization Buffer: 1 M Tris-HCl, pH 8.5
Sample Preparation:	To insure that proper ionic strength and pH are maintained for optimal binding, it is necessary to dilute serum samples, ascite fluid or cell culture supernatant at least 1:1 with Binding/Wash Buffer. Alternatively, the sample may be dialyzed overnight against Binding/Wash Buffer.
Assay Procedure:	Packing of Column 1) Resuspend completely the resin and transfer 1 ml slurry to a new column, in which 1 ml Binding/Wash Buffer was added in advance. 2) Allow the resin to settle down and the buffer to drain from the column. 3) Add 5 ml binding/Wash Buffer onto the column to equilibrate the resin and drain the buffer with a flow speed of about 1 ml/min. Column Purification 1) Apply the sample onto the column and drain the flow-through with a flow speed of about 1

Application Details

	ml/min. Collect the flow-through for measuring the binding efficiency to the resin, i.e. by SDS-PAGE. 2) Wash the column with 30 ml Binding/Wash Buffer and drain the buffer with a flow speed of about 2 ml/min, or until the absorbance of the effluent at 280 nm is stable. 3) Elute the immunoglobulins with 10-15 ml Elution Buffer and drain the eluate with a flow speed of about 1 ml/min. Collect the eluate and immediately neutralize to pH 7.4 with Neutralization Buffer (1/10 volume of total eluate) Regeneration of Column Regenerate the column by washing the resin with 10 ml Elution Buffer followed by equilibration with 5 ml Binding/Wash Buffer. Columns can be regenerated up to 10 times without significant loss of binding capacity.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Storage:	4 °C
Storage Comment:	Store regenerated Protein L Resin in Binding/Wash Buffer containing 20% ethanol at 2°C to 8°C. Do not freeze.
Expiry Date:	18 months

Publications

Product cited in:	Safdari, Farajnia, Asgharzadeh, Omidfar, Khalili: "humMR1, a highly specific humanized single chain antibody for targeting EGFRvIII." in: **International immunopharmacology**, Vol. 18, Issue 2, pp. 304-10, (2014) (PubMed). De Oliveira, Wang, Ryan, Morrison, Kohn, Hollis: "A CD19/Fc fusion protein for detection of anti-CD19 chimeric antigen receptors." in: **Journal of translational medicine**, Vol. 11, pp. 23, (2013) (PubMed). Zhang, Mao, Cao, Xiong, Wen, Chen, Zhu: "Generation and characterization of a novel recombinant antibody against LMP1-TES1 of Epstein-Barr virus isolated by phage display." in: **Viruses**, Vol. 5, Issue 4, pp. 1131-42, (2013) (PubMed).

Lin, Zhang, Wang, Lu, Zheng, Wang, Tang, Xu, Chen, Zhang, Zhao, Zhu, Mao, Feng: "A novel human Fab antibody for Trop2 inhibits breast cancer growth in vitro and in vivo." in: **International journal of cancer. Journal international du cancer**, Vol. 134, Issue 5, pp. 1239-49, (2013) (PubMed).

Chen, Zhang, Mao, Zhu, Ming, Wen, Ma, Cao, Lin, Tang, Liang, Feng: "A human Fab-based immunoconjugate specific for the LMP1 extracellular domain inhibits nasopharyngeal carcinoma growth in vitro and in vivo." in: **Molecular cancer therapeutics**, Vol. 11, Issue 3, pp. 594-603, (2012) (PubMed).

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