Protein L / Agarose

Immunoglobulin binding protein; kappa light chain specific

Catalog code: gel-protl-4

https://www.invivogen.com/protein-l-agarose

For research use only

Version 24A15-MM

PRODUCT INFORMATION

Contents

• 2 x 2 ml Protein L / Agarose provided as a 50% v/v gel slurry in 20% v/v ethanol (total volume 8 ml)

Storage and stability

Protein L / Agarose is shipped at room temperature. Store at 4°C. Product is stable for 12 months when properly stored in regeneration and storage buffer (20% (v/v) ethanol in phosphate buffered saline). DO NOT FREEZE.

Note: Protein L / Agarose can be reused at least 10 times.

DESCRIPTION

Protein L is an immunoglobulin-binding protein expressed by the anaerobic species *Peptostreptococcus magnus*[1]. Protein L binds specifically to the variable domain of Ig kappa light chain without interfering with the antigen-binding site[2]. It binds strongly to human kappa light chain subclasses I, III and IV, and also to most kappa light chains of other species such as rat and mouse. As it recognizes kappa light chains of other chains, protein L can bind to all classes of Ig, in contrast to Protein A and Protein G which interact with the Fc region and bind exclusively to IgG heavy chains. Protein L does not bind bovine immunoglobulins which are present in the fetal bovine serum (FBS) and thus provides a convenient way to purify kappa light chain-containing monoclonal antibodies from culture supernatant.

Protein L / Agarose from InvivoGen uses the recombinant form of Protein L coupled to beads using a leak-resistant chemistry that provides a support with minimal nonspecific binding. Its binding capacity is 20-30 mg of human IgA/IgG per ml of gel.

1. Bjorck L. *et al.*, 1998. Protein L. A novel bacterial cell wall protein with affinity for Ig L chains. J Immunol. 140:1194-1197. **2. Nilson BH. *et al.*, 1993.** Purification of antibodies using protein L-binding framework structures in the light chain variable domain. J Immunol Methods. 164:33-40.

ANTIBODY	PROTEIN L BINDING
Human κ light chain	++++
Human λ light chain	-
Human IgA	++++
Human IgG1	++++
Human IgG2	++++
Human IgG3	++++
Human IgG4	++++
Human IgM	++++
Human IgE	++++
Human IgD	++++
Mouse IgA	++++
Mouse IgG	++++
Rat IgG	++++
Rabbit IgG	+
Cow IgG	-
Goat IgG	-

METHOD

Required buffers (not provided)

Equilibration and wash buffer: 10 mM sodium phosphate, 150 mM sodium chloride, pH 7.2

Elution buffer: 0.1 M glycine, pH 2-3

Neutralization buffer: 0.75 M sodium phosphate or 1 M TRIS, pH 7.5-9

Regeneration and storage buffer: 20% (v/v) ethanol in phosphate buffered saline

Immunoglobulin purification procedure

1. Pack 1 ml of immobilized Protein L / Agarose into a suitable column.
2. Perform all chromatography steps at a flow rate of 0.5-1 ml/min, or under gravity flow.
3. Equilibrate the column with 5 ml of Equilibration and Wash Buffer.

Optional:

In the presence of certain denaturing agents such as urea or guanidine chloride, we recommend to dialyze sample against 100 volumes of equilibration and wash buffer.

4. Filter the sample using a 0.2 µm filter.
5. Load the sample onto the column.
6. Wash the column with 10 ml of equilibration and wash buffer.
7. Elute the column with 10 ml of elution buffer.
8. Immediately adjust the eluate to pH 7.5 by adding neutralization buffer.
9. Wash the column with 10 ml of equilibration and wash buffer.
10. Store Protein L / Agarose in regeneration and storage buffer at 4°C.

Note: The procedure outlined above can be scaled up or down as desired.

RELATED PRODUCTS

Product	Description	Cat. code
Peptide M / Agarose	For IgA1 and IgA2 purification	gel-pdm-2
Protein G / Agarose	For IgG purification	gel-agg-2

TECHNICAL SUPPORT
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