

Recombinant Protein L ab155706

[1 References](#) [1 Image](#)

Description

Product name	Recombinant Protein L
Purity	> 98 % SDS-PAGE. Less than 1.0 EU per µg by the LAL method.
Endotoxin level	< 1.000 Eu/µg
Expression system	Escherichia coli
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Finnegoldia magna
Predicted molecular weight	42 kDa including tags
Tags	His tag N-Terminus
Additional sequence information	Protein is fused with a single cysteine at C-terminus.

Specifications

Our **Abpromise guarantee** covers the use of **ab155706** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Lyophilized
Additional notes	<p>Protein L was isolated from the surface of bacterial species <i>Peptostreptococcus magnus</i> and was found to bind Ig(IgG,IgM,IgA,IgE and IgD) through L chain interaction, from which the name was suggested. Despite this wide-ranging binding capability with respect to Ig classes, Protein L is not a universal immunoglobulin-binding protein. Binding of Protein L to immunoglobulins is restricted to those containing kappa light chains (i.e., k chain of the VL domain). In humans and mice, kappa (k) light chains predominate. The remaining immunoglobulins have lambda (l) light chains. The recombinant protein contains four immunoglobulin (Ig) binding domains (Bdomains) of the native protein. Besides antibody, protein L is also suitable for binding of a wide range of antibody fragments such as Fabs, single-chain variable fragments (scFv), and domain antibodies (Dabs).</p> <p>After reconstitution this product is stable for 3 months at -80°C under sterile conditions.</p>

Preparation and Storage

Stability and Storage

Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Please see notes section.

pH: 7.4

Constituent: 1.19% Monobasic dihydrogen sodium phosphate

Trehalose normally added as protectants before lyophilization.

Reconstitution

Reconstitute with sterile deionized water to a concentration of 15 mg/ml.

General Info

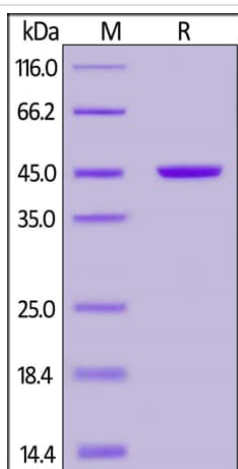
Relevance

Protein L is a 36,000 dalton immunoglobulin-binding protein isolated from the bacteria *Peptostreptococcus magnus*. Unlike Protein A and Protein G, which bind to the Fc region of immunoglobulins (antibodies), Protein L binds antibodies through light chain interactions. Since no part of the heavy chain is involved in the binding interaction, Protein L binds a wider range of antibody classes than Protein A or G. Protein L binds to representatives of all antibody classes, including IgG, IgM, IgA, IgE and IgD. Single chain variable fragments (ScFv) and Fab fragments also bind to Protein L. Despite this wide binding range, Protein L is not a universal antibody-binding protein. Protein L binding is restricted to those antibodies that contain kappa light chains and it is only effective in binding certain subtypes of kappa light chains - about 65% of human immunoglobulins carry kappa light chains. Given these specific requirements for effective binding, the main application for immobilized Protein L is purification of monoclonal antibodies from ascites or cell culture supernatant that are known to have the kappa light chain. Protein L is extremely useful for purification of VLkappa-containing monoclonal antibodies from culture supernatant because it does not bind bovine immunoglobulins, which are often present in the media as a serum supplement. Also, Protein L does not interfere with the antigen-binding site of the antibody, making it useful for immunoprecipitation assays, even using IgM.

Cellular localization

Cell surface

Images



SDS-PAGE - Recombinant Protein L (ab155706)

SDS-PAGE of reduced ab155706 stained overnight with Coomassie Blue. The reducing (R) protein migrates as a 45 kDa polypeptide.

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