Fluka Analytical
sigma-aldrich.com
Sigma-Aldrich Chemie GmbH · Industriestrasse 25 · Postfach · CH-9471 Buchs / Switzerland
Tel. +41 / 81 755 25 11 · Fax +41 / 81 756 54 49 · flukatec@sial.com

34431 CBind™ L

Applications

CBind™ L is an immobilized CBD-rProtein L matrix, designed for quick and efficient purification of:

- IgG, IgA, IgE, IgD containing kappa light chains, especially human κ light chains I, III and IV and mouse κ light chain I
- Fab and scFv immunoglobulins fragments containing κ light chains as listed above
- human or mouse antibodies directly from cow, goat or sheep

Product Description

Protein L from *Peptostreptococcus magnus* binds immunoglobulins (Ig) primarily through kappa light chain interactions without interfering with the antigen-binding site of Igs (2).
Protein L binds to a wider range of Ig classes and subclasses from a wider variety of species than any other commercially available Ig binding protein.
CBind™ L (CBD-rProtein L-cellulose) has improved binding capacity but similar binding properties than Protein L-agarose.
The CBind™ resin is composed of regenerated cellulose beads stabilized by hydrogen bonds and is stable over a broad pH range (1-14) and most chromatographic buffers, detergents, chaotropic agents, and organic solvents. It is very hydrophilic, and thus non-specific binding of proteins is minimal. The CBind™ resin is specially designed to have enhanced flow properties.

Properties

Matrix:	Beaded cellulose
Ligand:	$rCBD_{clos}$ - Protein L
Coupling chemistry:	Bind & Lock™
Ligand density:	approx. 2.5 mg rCBD-Protein L /ml cellulose
Bead size range:	50-80 µm
pH stability:	2.0 - 10
Storage buffer:	20% ethanol in PBS

Static Binding capacity* for IgG:

Human	approx. 17 mg/ml.
Mouse	approx. 16 mg/ml
Rat	approx. 15 mg/ml
Rabbit	approx. 2 mg/ml

* Determined by incubation of 25 µl of CBinD™ L with 2 mg of purified IgG.

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Directions
Buffers:
PBS: 20 mM K-phosphate buffer, 150 mM NaCl pH 7.2
Elution buffer: 0.1 M Glycine pH 2.2
Cleaning buffer: 6 M guanidine hydrochloride, 20 mM Tris/HCl pH 7.5

Sample preparation
1. Clarify sample by centrifugation and/or filtration
2. Dilute or buffer exchange sample to equilibrate with PBS

Antibody purification:
1. Equilibrate CBindD™ L column with 5 column volumes of PBS
2. Apply the sample. Effluent may be reloaded to improbe purification yield
3. Wash with 20 column volumes of PBS to remove the unbound material
4. Elute purified antibodies with 2-5 column volumes of elution buffer.
5. If necessary the column can be cleaned with 6 M guanidine hydrochloride
6. Re-equilibrate with 10 column volumes of PBS
7. Neutralize eluted antibodies with 1 M Tris base

This procedure has been successfully applied to the purification of Ig from human plasma, monoclonal IgG from mouse ascites fluid, single chain antibodies (ScFv) derived from *E. coli* and Fab fragments, prepared by partial digestion of human IgG with papain.

References:
1. Shoseyov O., and Doi, R.H., Proc. Natl. Acad. Sci. USA, 87, 2192-2195 (1990)
2. Bjorck, L., J Immunol., 140, 1194-1197 (1988)