Datasheet for ABIN1536254

Protein G Resin

19 Publications

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Overview

Quantity:	5 mL
Target:	Protein G
Reactivity:	Streptococcus
Application:	Purification (Purif), Affinity Chromatography (AC)

Product Details

Purpose:	Protein G Resin is an affinity chromatography medium designed for easy, one-step purification of classes, subclasses and fragments of immunoglobulins from biological fluids and cell culture media.
Characteristics:	The recombinant protein G ligand is coupled to 4% highly cross-linked agarose. The static binding capacity of Protein G Resin is greater than 20 mg sheep IgG/ml settled resin. The dynamic binding capacity will vary depending on several factors such as target antibody, flow rate etc. Ligand: Recombinant Streptococcal Protein G lacking the albumin-binding produced in E. coli - Number of IgG binding sites per ligand: 3 - MW of ligand: Approximately 22 kDa - PI of ligand: 4.69 - Degree of substitution: Approximately 2 mg protein G/ml settled resin - Static binding capacity: >20 mg sheep IgG/ml settled resin - Matrix spherical: agarose, 4% cross-linked - Average particle size: 90 µm (45-165 µm)
Bead Ligand:	Protein G
Bead Matrix:	Agarose beads

Product Details

Bead Size:	90 µm

Target Details

Target:	Protein G
Abstract:	Protein G Products
Background:	Protein G, a bacterial cell wall protein isolated from group G Streptococci, binds to mammalian IgGs mainly through Fc regions. Native protein G has 3 IgG binding domains and also sites for albumin and cell-surface binding. The latter have been eliminated from recombinant protein G to reduce nonspecific binding. Although protein G has very similar tertiary structures to protein A, their amino acid compositions differ significantly, resulting in different binding characteristics. Protein G can be used for purification of mammalian monoclonal and polyclonal IgGs that do not bind well to protein A. Protein G has greater affinity than protein A for most mammalian IgGs, especially for certain subclasses including human IgG3, mouse IgG1 and rat IgG2a. Unlike protein A, protein G does not bind to human IgM, IgD and IgA. Broad IgG binding spectrum Binding specificity complements of protein A Agarose media No specific albumin binding Optimized homogeneous recombinant ligand High capacity

Application Details

Comment:	High temperature heating is not recommended. The agarose melts above 65°C.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	1X PBS containing 20% ethanol
Handling Advice:	High temperature heating is not recommended. The agarose melts above 65°C.
Storage:	4 °C
Storage Comment:	Store regenerated Protein G Resin in Binding/Wash Buffer containing 20% ethanol at 2°C to 8°C. Do not freeze.

Handling

Expiry Date:	18 months

Publications

Product cited in:

Tukaj, Grüner, Tukaj, Zillikens, Kasperkiewicz: "Calcitriol exerts anti-inflammatory effects in keratinocytes treated with autoantibodies from a patient with bullous pemphigoid." in: **Journal of the European Academy of Dermatology and Venereology : JEADV**, (2015) (PubMed).

Hakimi, Goto, Suganuma, Angeles, Kawai, Inoue, Kawazu: "Development of monoclonal antibodies against Plasmodium falciparum thioredoxin peroxidase 1 and its possible application for malaria diagnosis." in: **Experimental parasitology**, Vol. 154, pp. 62-6, (2015) (PubMed).

Ringel, Probst, Dammeyer, Buchmeier, Jänsch, Wissing, Tinnefeld, Mendel, Jockusch, Kruse: " Enzymatic characterization of recombinant nitrate reductase expressed and purified from Neurospora crassa." in: **Fungal genetics and biology : FG & B**, Vol. 80, pp. 10-8, (2015) (PubMed).

Tian, von Dahl, Liu, Friso, van Wijk, Klessig: "The combined use of photoaffinity labeling and surface plasmon resonance-based technology identifies multiple salicylic acid-binding proteins. " in: **The Plant journal : for cell and molecular biology**, Vol. 72, Issue 6, pp. 1027-38, (2014) (PubMed).

Muth, Schütze, Hain, Yagita, Schild, Probst: "A CD40/CD40L feedback loop drives the breakdown of CD8(+) T-cell tolerance following depletion of suppressive CD4(+) T cells." in: **European journal of immunology**, Vol. 44, Issue 4, pp. 1099-107, (2014) (PubMed).

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