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Protein G Recombinant

Catalog Number: PRP-402PRO
Quantity: 1 milligram, 10 milligrams, 100 milligrams
Format: Lyophilized powder containing no additives
Host: *E. coli*

Background:

Protein G binds to the immunoglobulin constant region of many species. It can be used to detect, quantify and purify IgG antibodies and antibody/antigen complexes. Recombinant protein G contains only IgG binding domains. The albumin-binding domain as well as cell wall and cell membrane binding domains have been removed to ensure the maximum specific IgG binding capacity.

Specificity and Preparation:

The recombinant protein G is produced in *Escherichia coli* using the sequence from Streptococcus C1-C2-C3. Recombinant protein G contains amino acids 190-384 of the native sequence, and has a molecular mass of 21.6 kDa. Recombinant protein-G migrates on SDS-PAGE around 32 kDa. It has a higher affinity for most mammalian immunoglobulins than protein A, including human IgG3 and rat IgG2a. It does not bind to human IgM, IgD, or IgA. Purity is >95% as determined by SDS-PAGE and RP-HPLC.

Amino acid sequence:

MTYKLLINGKTLKGETTTEAVDAATAEKVFKQYANDNGVDGEWTYDDAT
KTFTVTEKPEVIDASELTPAVTTYKLVINGKTLKGETTTEAVDAATAEKVFK
QYANDNGVDGEWTYDDATKTFTVTEKPEVIDASELTPAVTTYKLVINGKTL
KGETTTKAVDAETAEKAFKQYANDNGVDGVWVWYDDATKTFTVTE.

Usage and Storage:

Protein G is reported to be an excellent tool for purification and detection of IgG antibodies and antibody/antigen complexes.

Reconstitute with deionized water or PBS. After reconstitution, aliquot and store at -20°C. Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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