spg
Recombinant Cys-Protein G

Catalog No.	CS479A	**Quantity:**	1 mg
	CS479B		10 mg
	CS479C		1 g

Alternate Names: Immunoglobulin G-binding protein G

Description: Protein G is a bacterial protein derived from the cell wall of certain strains of b-hemolytic Streptococcci. It binds with high affinity to the Fc portion of various classes and subclasses of immunoglobulins from a variety of species. Protein G binds to all IgG subclasses from human, mouse and rat species. It also binds to total IgG from guinea pig, rabbit, goat, cow, sheep, and horse. Protein G binds preferentially to the Fc portion of IgG, but can also bind to the Fab region, making it useful for purification of F(ab') fragments of IgG.
The recombinant Protein G is a genetically engineered protein containing 3 IgG-binding regions of protein G. Cell wall binding region, cell membrane binding region and albumin binding region have been removed from the recombinant Protein G to ensure the maximum specific IgG binding. The recombinant Protein G is ideal for purification of polyclonal or monoclonal IgG antibodies.

UniProt ID: P19909

Specificity: Binds with greater affinity than Protein A to most mammalian immunoglobulins, including human IgG3 and rat IgG2a. Does not bind to human IgM, IgD and IgA.
Protein G binds to various human, mouse and rat IgG subclasses (e.g., human IgG1, IgG2, IgG3, IgG4; mouse IgG2a, IgG2b, IgG3; rat IgG2a, IgG2c). It also binds to total IgG from cow, goat, sheep, house and rabbit.

Source: Expressed in *E. coli* using the sequence from *Streptococcus sp.* including a Cys residue at N-terminus.

Molecular Weight: 21.9 kDa predicted (201 aa monomer) 40 kDa on SDS PAGE.

Formulation: Lyophilized with no additive.

Purity: >95% by SDS-PAGE and RP-HPLC

Endotoxin Level: < 0.1 EU/µg, determined by LAL method.

Extinction Coefficient: $E^{0.1\%}_{280nm} = 1.37$

Amino Acid Sequence: CLPKTDTYKL ILNGKTLKGE TTTEAVDAAT AEKVFKQYAN DNGVDGEWTY DDATKTFTVT EKPEVIDASE LTPAVTTYKL VINGKTLKGE TTTEAVDAAT AEKVFKQYAN DNGVDGEWTY DDATKTFTVT EKPEVIDASE LTPAVTTYKL VINGKTLKGE TTTKAVDAET AEKAFKQYAN DNGVDGVWTY DDATKTFTVT E

Reconstitution: **Centrifuge vial prior to opening**. Dissolve in distilled water or saline.

Storage & Stability: Lyophilized protein is stable for 1 year at -20°C to -80°C. After reconstitution, stable at 2 -8°C for 1 month under sterile conditions. Recommended to aliquot and store at -20°C to -80°C for up to 3 months. **Avoid repeated freeze/thaw cycles.**

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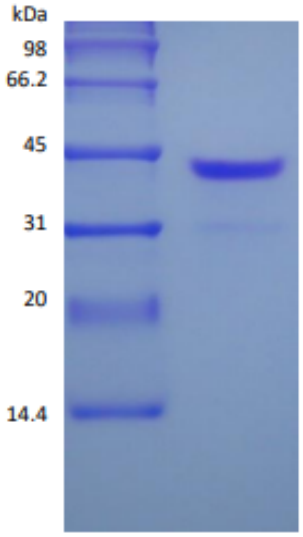
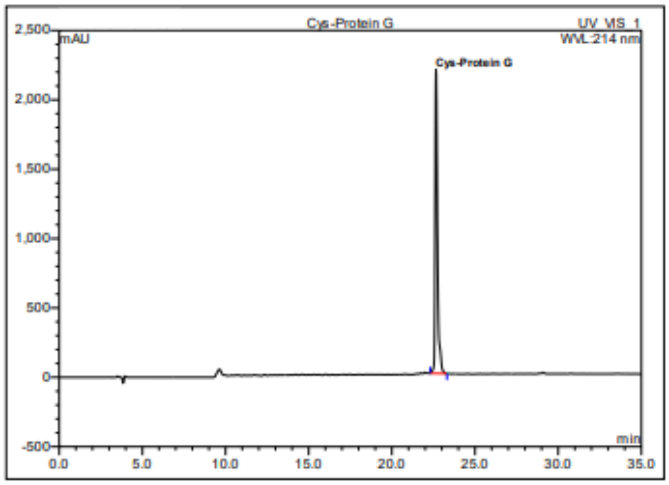
SDS-PAGE



RP-HPLC



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