

# Rabbit Anti-Streptococcus Protein G Polyclonal Antibody

## Rabbit, Polyclonal (Protein G)

Cat. No. DPAB0707

Lot. No. (See product label)

### PRODUCT INFORMATION

**Product Overview:** Rabbit Antibody to Protein G (Streptococcus species). Fluorescein conjugated  
**Specificity:** Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum and Protein G.  
**Immunogen:** Protein G (Streptococcus sp)  
**Host animal:** Rabbit  
**Format:** FITC, Lyophilized. Reconstitute with 2.0ml of deionized water (or equivalent). Centrifuge product if not completely clear after standing at room temperature.  
**Applications:** Suitable for use in immunomicroscopy (1:500-1:2,500) and flow cytometry (1:2,00-1:10,000) or FACS analysis. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.  
**Purification:** Delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer

### PACKAGING

**Concentration:** 10mg/ml (OD280nm) (prior to lyophilization)  
**Buffer:** Lyophilized from 0.02M Potassium phosphate, 0.15M Sodium chloride, pH 7.2  
**Preservative:** 0.01% Sodium Azide  
**Storage:** Store lyophilized product at 2-8°C. After reconstitution, this product is stable for several weeks at 2-8°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage, reconstitute product with 50% glycerol instead of water, aliquot and store at -20°C or below. Avoid multiple freeze/thaw cycles. Expiration date is one (1) year from date of reconstitution.  
**Warning:** This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1 – 1.0 %. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

### BACKGROUND

**Introduction:** Protein G is an immunoglobulin-binding protein expressed in group C and G Streptococcal bacteria much like Protein A but with differing specificities. It is a 65-kDa (G148 protein G) and a 58 kDa (C40 protein G) cell surface protein that has found application in purifying antibodies through its binding to the Fc region. The native molecule also binds albumin, however, because serum albumin is a major contaminant of antibody sources, the albumin binding site has been removed from recombinant forms of Protein G. Protein G is a bacterial protein derived from the cell wall of certain strains of b-hemolytic Streptococci. 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 unlike Protein A can also bind to the Fab region, making it useful for purification of F(ab') fragments of IgG. Due to its affinity for the Fc region of many mammalian immunoglobulins, protein G is considered a universal reagent in biochemistry and immunology  
**Keywords:** Spg; IgG binding protein G; Immunoglobulin G binding protein G [Precursor]; Protein G; Bacteria; Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; Streptococcus; Streptococcus protein G

### REFERENCES

1. Sjobring U, Bjorck L, Kastern W, et al (1991). "Streptococcal protein G. Gene structure and protein binding properties". J Biol Chem 266 (1): 399-405.
2. Yuan Cheng, Dinshaw J Patel, An efficient system for small protein expression and refolding, Biochemical and Biophysical Research Communications, Volume 317, Issue 2, 30 April 2004, Pages 401-405