

### **Introduction**

Recombinant Protein-G used also in Rimon's Protein G beads (Cat 1017) is a genetically engineered form of Protein-G. Non-essential regions have been removed while leaving the IgG binding sites intact.

Protein G has been extensively used for the isolation of IgG from several species of mammals. Although binding of Protein G to IgG's is not equivalent for all IgG subclasses, Protein-G possesses properties that have made it a popular choice for antibodies isolation. Protein G binds immunoglobulins at the F<sub>c</sub> region of leaving the F<sub>ab</sub> region free to bind the antigen. Hence, Protein G is extremely useful for isolating of immune complexes.

### **Protein G Beads characteristics**

Source: recombinant protein, Molecular Weight 33 kd expressed in *E. coli*

Purity: > 90% by SDS-PAGE.

Spectroscopic analysis: OD<sub>280nm</sub>/250nm=2.51

LAL Pyrogenicity: < 0.5 EU/mg Recombinant Protein G

Composition: Lyophilized white Powder. 10.6 mg Recombinant Protein G, 0.78 mg phosphate buffer salts.

Storage before reconstitution: Store at 4°C. Product is stable under these conditions for two years.

Reconstitution: Reconstitution per 10 mg vial with 0.48 mL of deionized water will give a solution containing 22.1 mg/ml Recombinant Protein G in 10 mM Phosphate buffer, pH 7.4

Storage after reconstitution: Store at 4°C in PBS pH 7.4 added with NaN<sub>3</sub> 0.1% (w/v) as a preservative. Product is stable under these conditions for 1 month. Alternatively, Prepare small aliquots and store at -20°C for up to two years. Avoid repeated freezing and thawing cycles.