

Affinity matrices are prepared by coupling biologically active ligands to activated cross linked agarose (CL agarose) using appropriate method. The method adapted include cyanogen bromide (CNBr), epoxy and divinylsufone activation methods and triazine condensation reaction.

**Gel suspension**

The ligand immobilized CL agarose are provided as pre-swollen 50 % suspension (v/v) in aqueous medium. The volume always refers to the settled gel volume.

**Pre-packed column**

The affinity matrices are provided as ready to use pre-packed columns in polypropylene, biocompatible columns.

**Antibody - CL Agarose**

**Description:** Affinity purified antibodies to IgGs, GST or *E.coli* proteins are coupled to CL agarose. One ml gel has a binding capacity of 0.3-0.5 mg of corresponding antigen.

**BSA - CL Agarose**

**Description:** This matrix is useful in purifying hapten antibodies by absorbing the contaminating antibodies or binding proteins to BSA. Amount of BSA coupled to CL agarose is in the range of 8-10 mg per ml.

**Protein A - CL Agarose**

**Description:** Protein A-CL agarose provide a simple and efficient method to purify IgG fraction from serum, ascites or other biological fluids. The gel is prepared by coupling protein A isolated from *Staphylococcus aureus*. The amount of protein A coupled is 2-3 mg/ml of drained gel. The binding capacity for rabbit IgG is in the range of 10-12 mg/ml.

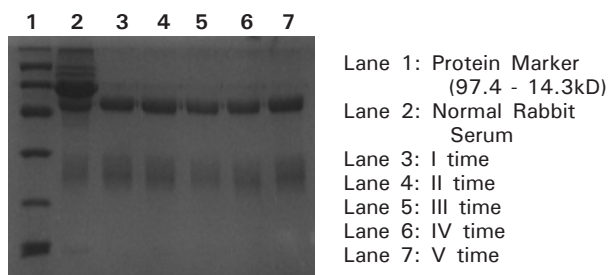


Figure : Rabbit IgG Purification 5 cycles

**Protein G CL Agarose**

**Description:** Protein G CL Agarose is prepared by covalent immobilization of recombinant protein G onto CL Agarose.

The protein G is truncated to eliminate the albumin binding domains and retain efficient binding of the F<sub>C</sub> region of IgG.

The amount of recombinant protein G coupled is 2-3 mg/ml of drained gel.

The binding capacity for human IgG is in the range of 8-12 mg/ml.

**Cibacron Blue 3 GA - CL Agarose**

**Description:** Reactive dyes mimic biological substances such as substrates, co-factors, effectors and thereby produce the affinity effect. Cibacron Blue - CL Agarose binds NAD<sup>+</sup> dependent enzymes. Concentration of the dye coupled to the gel is 1.5 to 2 μ mole/ml. The binding capacity for serum albumin is 4-6 mg/ml.

**Heparin - CL Agarose**

**Description:** Heparin-CL Agarose is used for separation of plasma proteins involved in coagulation, nucleic acids, enzymes and several other proteins.

**Concanavalin A- CL Agarose**

**Description:** A wide variety of soluble glycoprotein and other carbohydrate containing substances have been isolated using lectin - CL agarose.

Con A-CL agarose binds molecules that contain α-D-mannose, α-D-glucose. The bound proteins can be eluted with same sugar. Con A-CL agarose is prepared by coupling Concanavalin A, a lectin isolated from jack bean to crosslinked agarose. The concentration of coupled lectin is in the range of 10-15 mg/ml of drained gel. The binding capacity depends upon the material used. The binding capacity for ovalbumin is 3-5 mg/ml drained gel.