

Recombinant Protein G Agarose

Cat. No. COP08 Lot. No. (See product label)

SPECIFICATION

Product Overview

This outstanding recombinant Protein G has the albumin binding domain deleted providing very clean immunoglobulin purifications. It is coupled to highly cross-linked agarose at 2 mg rProtein G per ml beads using cyanogen bromide activation. The combination provides very superior performance binding 20 mg of human IgG per ml beads under static conditions. Binding under flow will be less depending on the flow rate for all Protein A and Protein G products. High flow rates are possible with this highly cross-linked agarose product under gravity flow, but it is not designed to pump under high pressure.

Ligand Density approximately 2 mg Protein G per ml of drained gel

Dynamic Binding Capacity approximately 18 mg human IgG per ml of drained gel (calculated as the amount of human IgG adsorbed to the gel before flow exceeded 1% of the absorbance of the ingoing solution at 30 cm/hour and a 0.92 mg/ml sample concentration)

Bead Structure 4% highly cross-linked agarose

Bead Size Range 45 to 185 μ m

Mean Bead Size approximately 90 μ m

Maximum Linear Flow Rate >1300 cm/hour at 0.05 MPa (0.5 bar) in an XK 16/20 column, bedheight 5 cm

Maximum Operating 0.1 MPa (1 bar, 14 psi)

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Backpressure	
pH Working Range	2 to 9 (NOTE: Protein G may hydrolyse at low pH)
pH Stability	Long term storage and cleaning-in-place - 3 to 9
Chemical Stability	IgG binding capacity and recovery maintained after storage for (a) 7 days at 37°C in 1M acetic acid (pH 2.0), 2 mM sodium phosphate, 1% SDS (pH 7.0), 6 M guanidine-HCl, 70% ethanol or (b) 2 hours at room temperature in 0.1 M HCl, pH 1.0, 8 M urea, pH 10.5, 0.1 M Glycine-NaOH, pH 11
Physical stability	Negligible volume variation due to changes in pH or ionic strength
Sanitization	Sanitize column using 70% ethanol
Formulation	Provided as a 50% aqueous suspension of Protein G agarose in phosphate buffer saline containing 0.08% sodium azide.
Storage	Store at 4-8°C in a suitable bacteriostat. DO NOT FREEZE. Products are stable for one year from purchase when stored properly
Ship Conditions	Ship ambient temperature, do not freeze, refrigerate upon arrival

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