

mAbOn-A®

High-Capacity, Cost-Effective Protein A Resin for Antibody Purification

Product Overview

mAbOn-A® is a next-generation Protein A resin developed using a recombinant *E. coli*-secreted Protein A ligand, covalently immobilized on highly cross-linked agarose beads. Engineered for high dynamic binding capacity, excellent alkaline stability, and reduced ligand leakage, mAbOn-A® delivers superior purification performance compared to leading global resins-at a fraction of the cost.

Key Features & Benefits

- Industry-Leading Dynamic Binding Capacity (DBC): ≥ 70 mg IgG/mL resin (10% breakthrough, RT = 5 min).
- Superior IgG Binding Performance: Outperforms leading marketed Protein A resins in DBC and total IgG binding.
- Alkaline Stability: Withstands repeated CIP cycles with 0.1–0.5 M NaOH.
- Economical: Significant cost savings per gram of purified antibody.
- Reusability: >200 purification cycles with consistent yield and purity.
- Low Ligand Leakage: ≤ 3 ppm, minimizing downstream polishing requirements.
- Scalable: Available from R&D to GMP manufacturing scale.

Applications

- Large-scale purification of therapeutic monoclonal antibodies (IgG1, IgG2, IgG4).
- Recovery of immunoglobulins from human plasma.
- Process development and manufacturing of biosimilars or novel biologics.
- Antibody-based research, diagnostics, and therapeutic protein capture.

Technical Specifications

Parameter	mAbOn-A®
Base matrix	UNOsphere® base matrix from Bio-Rad, US
Protein A ligand	Alkali resistant <i>E. coli</i> secreted Protein A ligand produced and purified from Animal component free (ACF)
Particle Size	75-100 μ m
Dynamic Binding Capacity (DBC)	≥ 70 mg hIgG/mL resin (10% breakthrough, 5 min RT)
Static Binding Capacity	≥ 75 mg/mL resin
Operational pH	3-10
Cleaning pH	2-13
CIP Stability	Up to 200+ cycles (0.1–0.5 M NaOH)
Ligand Leakage	≤ 3 ppm
Storage Buffer	20% ethanol in 0.1 M NaCl or Phosphate Buffer pH 7.5



