

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

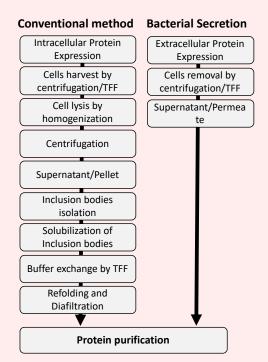
- Industry-Leading Dynamic Binding Capacity (DBC):
 ≥ 70 mg IgG/mL resin (10% breakthrough, RT = 5 min).
- Superior IgG Binding Performance: Outperforms leading marketed Protein A resins in DBC and total IgG binding.
- Alkaline Stability: Withstands repeated CIP cycles with 0.1–0.5 M NaOH.
- Economical: 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 E. coli secreted Protein A ligand produced ar | |
| | purified from Animal component free (ACF) | |
| Particle Size | 75-100 μm | |
| Dynamic Binding Capacity (DBC) | ing Capacity (DBC) ≥70 mg hlgG/mL resin (10% breakthrough, 5 min RT) | |
| Static Binding Capacity | 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 | |



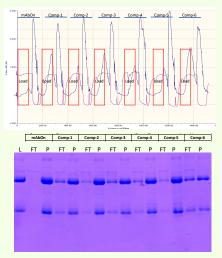




Performance Comparison

| Parameter | mAbOn-A® | Leading Resin A | Leading Resin B |
|----------------------|--------------------------|-----------------|-----------------|
| Dynamic Binding | ≥ 70 | 55-60 | 50-55 |
| Capacity (mg/mL) | | | |
| Reusability (cycles) | 200+ | 150-200 | 100-150 |
| Ligand Leakage (ppm) | ≤3 | ≤5 | ≤5 |
| Cost Efficiency | High (40-50% lower cost) | Medium | Low |

mAbOn-A® Vs Competitors



| numan serum igo binumg capacity | | | | | | |
|---------------------------------|-------------------------|--------------------|--------------------------------------|--|--|--|
| Source | Flow Through (mg) | Total Peak (mg) | Binding capacity (ml of resin) | | | |
| mAbOn-A® | 15.7 | 275.5 | 55.1 mg/ml | | | |
| Competitor-1 | 140.7 | 171.0 | 34.2 mg/ml | | | |
| Competitor-2 | 58.0 | 249.5 | 49.9 mg/ml | | | |
| Competitor-3 | 146.2 | 169.2 | 33.9 mg/ml | | | |
| | 00.0 | 207.2 | 44 4 | | | |

234.6

46.9 mg/ml 111.4 22.2 mg/ml

Human corum IaG hinding canacity

Binding Buffer : 20mM S. phosphate pH 7.4, 150mM NaCl Elution buffer : 100mM Citrate pH 3.0

55.7

Column : 5ml Column Flow Rate : 200 cm/h Sample types : Human serum IgG

Competitor-6 184.1

Competitor-5

Packaging Options

| Catalog No. | Description | Pack Size |
|-------------|--|-----------|
| MA-001-1ml | mAbOn-A® pre-packed column | 1 mL |
| MA-002-5ml | mAbOn-A [®] pre-packed column | 5 mL |
| MA-003-50ml | mAbOn-A [®] lab pack | 50 mL |
| MA-004-1L | mAbOn-A® bulk resin | 1 L |
| MA-005-10L | mAbOn-A® bulk resin | 10 L |
| MA-006-50L | mAbOn-A® bulk resin | 50 L |
| MA-007-100L | mAbOn-A® bulk resin | 100 L |

Storage & Handling

- Store at +2 to +8°C in 20% ethanol containing buffer solution.
- Do not freeze or allow to dry.
- Equilibrate with neutral pH buffers prior to use.

Regulatory & Quality

- Produced under ISO 9001:2015 certified process.
- Animal component-free (ACF), E. coli secreted recombinant Protein A ligand.
- Low endotoxins, HCP and bioburden.
- QC tested for binding capacity, leakage, and performance.

Sales & Business development

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