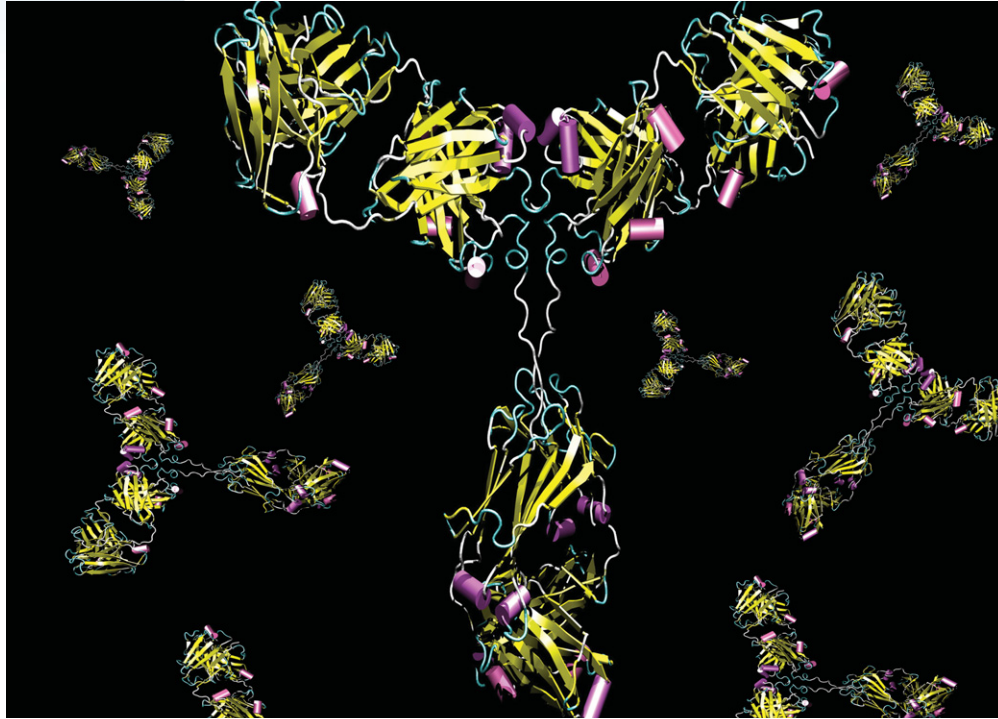


MAbsorbents®

- High-capacity Protein A alternative
- Total absence of animal and cell-derived contamination
- Robust affinity adsorbents, easily sanitizable with NaOH
- For purification and/or primary antibody capture
- Optimum antibody selectivity from a range of sources
- High linear flow rates with PuraBead® cross-linked agarose matrix

www.prometic.com



Synthetic affinity ligand adsorbents for antibody purification

It's no secret that antibodies dominate the stage when it comes to biotech products under development, in clinical trials and in therapeutic use. This demand for antibodies places enormous pressure on purification process designers to remove contaminants, improve product yields, increase purity, reduce costs and meet stringent regulatory requirements.

Traditionally researchers and manufacturers have turned to Protein A as the principal antibody purification technology. However, increasing concerns about the limitations of Protein A, including leaching into the product, antibody denaturation, poor stability under harsh process conditions, the nature of its biological source, and its high cost, have resulted in the need for a suitable alternative.

Our MAbsorbent® synthetic affinity ligand adsorbents are the innovative alternative to Protein A. While maintaining the requirements for binding capacity, product yield and purity, MAbsorbents® can operate in harsh environments for hundreds of process cycles at less than half the cost of traditional purification methods.

MAbsorbents®

- Polyclonal IgG and all sub-classes
- Monoclonal antibodies (all classes of IgG)
- Humanized antibodies
- Antibody fragments
- Antibody fusion proteins



MAbsorbents® are a family of synthetic affinity ligand adsorbents designed for the purification of antibodies.

Since 1987 ProMetic has been pioneering design, development and manufacture of affinity purification technology for large-scale bioprocessing as well as research and development at lab-scale in the biotechnology industry. Our patented Mimetic Ligand™ technology synthetically “mimics” and enhances the natural molecular affinity of binding ligands towards targeted biomolecules.

The result: Optimized binding and yields for all your biomolecular purification needs. The key to our success in biomolecule purification lies in the development of an extensive Chemical Combinatorial Library™. Through years of dedication, research and development we have systematically screened countless ligand arrays and utilized our computer modeling processes to design new ligand structures.

Dedicated to ISO9001 quality and increased production efficiency

Quality and innovation go hand in hand, that's why we work hard to maintain and even exceed ISO9001:2000 standards. By staying close to our customers and their unique requirements, we enhance our ability to provide innovative solutions to meet the needs of the biopharmaceutical market.

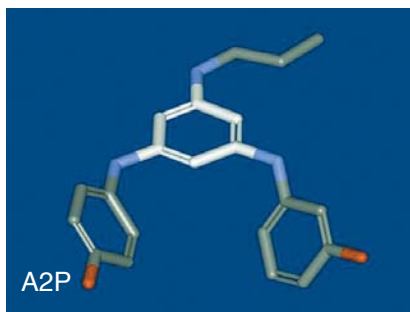
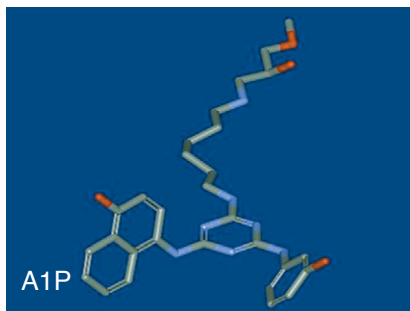
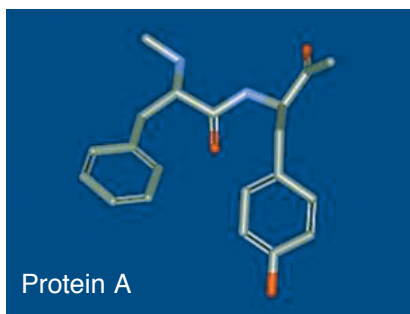
We collaborate with pharmaceutical and biotech companies to optimize bioseparation and purification processes. Our patented separation technology and expansive Chemical Combinatorial Library™ of synthetic ligand media increases production efficiency, reduces manufacturing costs and enables companies to strengthen market positions through continuous improvements in product purity and yield.

MAbsorbent® A1P and A2P – your high performance alternatives to Protein A

MAbsorbent® synthetic affinity ligand adsorbents are validated for the purification of antibodies. Designed to improve efficiency over traditional Protein A processes, these totally synthetic Mimetic Ligands™ are derived from our Chemical Combinatorial Library™ of multi-dimensional triazine derivatives.

Similar but very different

It's true. MAbsorbent® synthetic affinity ligand adsorbents “mimic” recombinant and natural Protein A. However, they are very different in that MAbsorbents® bind to all sub-classes of IgG. MAbsorbents® also have different species specificity compared to Protein A.



MAbsorbents®

Explore the difference

MAbsorbents® were developed to mimic the Phe-132, Tyr-133 dipeptide binding site in the hydrophobic core structure of Protein A. We have developed IgG binding ligand libraries using a triazine scaffold substituted with aromatic amines. The resultant synthetic bifunctional ligands exhibit high affinities for human immunoglobulin G. Hence, MAbsorbent® A1P and A2P provide excellent purification performance.

The more you explore the unique differences to Protein A, the more you will realize MAbsorbents® are the logical first choice for the isolation of antibodies.

Discover more advantages

MAbsorbent® synthetic affinity ligands offer many advantages over protein and peptide ligands. For example, there are no origin traceability issues. Due to the absence of animal and cell-derived contaminants as well as host cell proteins, DNA and cell culture or fermentation components, the threat of potential contamination is minimized. This, of course, reduces process validation costs.

Another key difference is the robust nature of MAbsorbents® which are easily sanitizable with up to 1M NaOH. MAbsorbents® are also compatible with other common elution solvents such as ethylene glycol. All of these advantages, yet MAbsorbents® are much more economical than protein-based affinity chromatography media.

Similar binding capacity, more flexibility

MAbsorbents® effectively bind a wide variety of human and mammalian polyclonal antibodies (including bovine, mouse, sheep, goat, horse and rabbit) as well as whole monoclonal antibodies, humanized antibody chimeras and antibody fragments. MAbsorbent® A2P in particular is normally recommended for human or humanized antibodies, while MAbsorbent® A1P has proven ideal for murine antibodies.

Static binding capacity of MAbsorbents® is comparable to Protein A – typically up to 50mg pure human IgG/mL settled gel. Static and dynamic binding capacities vary, of course, with the type of antibody and the nature of the feed stream. This is where MAbsorbent® flexibility takes over. A simple pre-conditioning step in the MAb feed improves binding when dealing with challenging cell culture additives such as Phenol Red or Pluronic. Very dilute feeds can be concentrated to improve binding.

Go with the flow

MAbsorbent® synthetic affinity adsorbents enable high flow rates due to the tightly controlled particle sizing of our PuraBead®, cross-linked, agarose matrix. Our proprietary cross-linking and ligand derivatization process maximizes linear flow while maintaining binding capacity levels.



Our separation specialists are available to assist you in selecting the best adsorbent for your application or to design a custom solution.

Different antibody process streams, different sources, one solution...

MAbsorbent® A1P and A2P can be used to capture IgG from a wide variety of process streams including serum, plasma, ascites fluid, mammalian cell culture supernatant, or transgenic sources.

MAbsorbents® may be used for direct capture of antibodies, or as part of a multistep process depending on the specific nature of the feedstream and process requirements. For purification of MAbs, the binding pH range for MAbsorbents® is between pH 6 to 8, relatively independent of salt concentration. Elution normally occurs at a pH range of 2 to 4, but alternative elution strategies may be employed for near-neutral operations.

MAbsorbents®

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SPECIFICATIONS: MAbsorbent® A1P, A2P

Ligand:	Synthetic, aromatic triazine derivative
Matrix:	PuraBead® 6XL: 6% cross-linked agarose
Particle size:	100 ± 25µm (90%)
Binding capacity:	Up to 50 mg human IgG/ml resin, 20-30 mg MAb/ml resin
Flow rate:	Up to 600 cm/hr
Operating pressure:	1 bar (15 psi)
Operating pH:	pH 1.5 – 14
pH stability:	Long term (3 months): pH 3 – 13
Chemical stability:	All commonly used aqueous buffers
Sanitization:	1M sodium hydroxide, 25°C
Sterilizability:	Autoclavable: 121°C, 20 minutes
Storage:	20% ethanol

ORDERING INFORMATION

MAbsorbent® A1P/A2P Suspension for packing into columns

A1P (25 ml)	.3900-00025
A1P (100 ml)	.3900-00100
A1P (500 ml)	.3900-00500
A1P (1000 ml)	.3900-01000
A2P (25 ml)	.3901-00025
A2P (100 ml)	.3901-00100
A2P (500 ml)	.3901-00500
A2P (1000 ml)	.3901-01000

(Please enquire for quantities greater than 1 liter).

MAbsorbent® A1P/A2P

Pre-packed columns for attachment to chromatography workstations

A1P Screening Columns (5 x 1ml)	.4900-00001
A1P Preparative Columns (10ml)	.4900-00010
A2P Screening Columns (5 x 1ml)	.4901-00001
A2P Preparative Columns (10ml)	.4901-00010

MAbsorbents® are supplied in 20% ethanol as preservative.