

Antibody Purification Resins Protein A, A/G, G and L

The Spanish based company Agarose Bead Technologies (ABT) has over 20 years experience in the research and development of biotechnology products derived from agarose – standard and customized resins.

- Market Leader
- Completely vertical integrated, from seaweed to agarose beads
- Multiple production plants (GMP compliance)
- Regulatory Support Files available
- ISO certified
- Business Continuity Plan
- Quality Guaranteed

ABT offers a wide selection of ligands and formats to purify total or specific antibodies from serum, ascites fluid, or tissue culture supernatant. ABT's portfolio is designed to meet small-scale (screening) to large-scale (bioprocess) needs. Products are available for low pressure and high pressure applications.

Get more of your antibody superb IgG binding capacity

Enhanced purifications: Excellent stability binding of the Protein

Safe Time & Money: reusable. low leakage levels due to very stable immobilization

ABT has developed Rapid Run™ high throughput beds to meet a chromatography media market demand for industrial process separations. Their rigidity and mechanical resistance permits high flow rates, with excellent resolution in a minimum time, making these beads ideal for process-scale use.

Optimize your purification process efficiency

The product range for agarose resins on the market is driven by the most common R&D and production requirements. At ABT, we recognize that there are many specialized applications which are not currently served, and many separations which could be improved by a more appropriate bead. ABT offers customized resins to extend the range of performance by controlling certain parameters.

- High flow/pressure properties
- Outstanding mechanical and chemical stability
- Excellent binding capacity
- Low non specific adsorption
- Thermally stable
- Outstanding reproducibility
- Scalable





Antibody
Purification
Protein A

ABT offers Protein A resins for purifications of a wide range of immunoglobulins of different mammalian species and also to purify certain IgG subclasses that have no affinity.

Protein A Agarose resin 4 Rapid Run™ can be used in batch or column purifications and it is specially recommended for high flow rates

Low pressure: Protein A Agarose Beads

- Get more of your antibody superb IgG binding capacity
- Get enhanced purification: Excellent stability binding of the Protein A
- Safe time & Money: reusable. Low leakage levels due to very stable immobilization

Product	Protein A Agarose Resin	Protein A Test Kit
Bead Geometry & Size	Spherical, Standard: ~50 - 150 µm	
Crosslinked	yes	
Agarose %	4%	
Coupling method	Covalent binding by reductive amination	
Static binding capacity	~25 mg human IgG/ml resin	
Antimicrobial agent	20% ethanol	
Storage Temperature	2 - 8°C	
Available product quantity	5 ml, 25 ml or 100 ml	

High pressure: Protein A Agarose Beads

Protein A Test Kit is a Pre-Packed ready to use product for gravity flow purification and includes 100 µl of resin. This format allows the user to pretest the resin before large scale use.

Product	Protein A Agarose Resin	Protein A Test Kit
Bead Geometry & Size	Spherical, Standard: ~50 - 150 µm	
Crosslinked	Highly Crosslinked	
Agarose %	4%	
Coupling method	Covalent binding by reductive amination	
Static binding capacity	~25 mg human IgG/ml resin	
Antimicrobial agent	20% ethanol	
Storage Temperature	2 - 8°C	
Available product quantity	5 ml, 25 ml or 100 ml	

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Antibody
Purification
Protein A/G

Protein A/G Agarose Resin 4 Rapid Run™ contains a mixture of 50% Protein G Agarose Resin 4 Rapid Run™ and 50% of Protein A Rapid Run™ in 20% ethanol. This resin is used to isolate mouse IgG, IgG_{2a}, IgG_{2b}, IgG₃ and IgA, rat IgG₁, IgG_{2a}, IgG_{2b}, IgG_{2c}, rabbit and goat polyclonal and human IgG, IgG₂, IgG₃ and IgG₄

High pressure: Protein A/G Rapid Run™ Agarose Beads

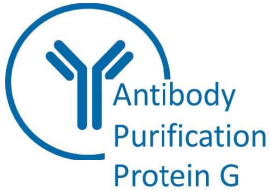
Protein A/G Test Kit is a Pre-Packed ready to use product for gravity flow purification and includes 100 µl of resin. This format allows the user to pretest the resin before large scale use.

Product	Protein A Agarose Resin	Protein A Test Kit
Bead Geometry & Size	Spherical, Standard: ~50 - 150 µm	
Crosslinked	Highly crosslinked	
Agarose %	4%	
Coupling method	Covalent binding	
Static binding capacity	~25 mg human IgG/ml resin	
Antimicrobial agent	20% ethanol	
Storage Temperature	2 - 8°C	
Available product quantity	5 ml, 25 ml or 100 ml	

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Protein G products (Test Kit and Bulk resins) have competitive advantages compared with market standards:

- Excellent stability binding of Protein G
- Resin is reusable with no significant loss of binding capacity

ABT offers Protein G resins to isolate and purify classes, subclasses, and fragments of immunoglobulins from cell culture media and biological fluids. Rapid purifications and high yield of purified immunoglobulin are obtainable by this method. Protein G is immobilized by means of covalent binding that minimizes protein G leakage and allows for column re-use.

Protein G Test Kit is a Pre-Packed ready to use product for gravity flow purification and includes 100 µl of resin. This format allows the user to pretest the resin before large scale use.

High pressure: Protein G Agarose Beads

Recombinant Protein G contains only IgG binding domains. The albumin-binding domain as well as cell wall and cell membrane binding domains of native Protein G have been removed to ensure maximum specific IgG binding capacity.

Product	Protein G Agarose Resin 4 Rapid Run™	Protein G Test Kit
Bead Geometry & Size	Spherical, Standard: ~50 - 150 µm	
Crosslinked	Highly crosslinked	
Agarose %	4%	
Coupling method	Coupling binding by reductive amination	
Static binding capacity	~20 mg human IgG/ml resin	
Antimicrobial agent	20% ethanol	
Storage Temperature	2 - 8°C	
Available product quantity	5 ml, 25 ml or 100 ml	



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Relative affinity of immobilized protein G for various species and subclasses of polyclonal and monoclonal IgGs1

Species / Subclasses	Protein G
Monoclonal	
Human	
IgG ₁	++++
IgG ₂	++++
IgG ₃	++++
IgG ₄	++++
Mouse	
IgG ₁	++++
IgG _{2a}	++++
IgG _{2b}	+++
IgG ₃	+++
Rat	
IgG ₁	+
IgG _{2a}	++++
IgG _{2b}	++
IgG _{2c}	++

Species / Subclasses	Protein G
Polyclonal	
Rabbit	+++
Cow	++++
Horse	++++
Goat	++
Guinea Pig	++
Sheep	++
Pig	+++
Rat	++
Mouse	++
Chicken	+
Human IgG	++++
Human IgM	+
Human IgD	+
Human IgA	+

ND: Not Determined



Antibody
Purification
Protein L

Low pressure: Protein L Agarose Beads

Protein L is an immunoglobulin binding protein. It is isolated from the bacteria *Peptostreptococcus magnus* and provides a convenient way to separate immunoglobulins from a variety of sources.

Protein L contains four immunoglobulin binding domains of the native protein and maybe used for the purification of IgG, IgM, IgA and IgD containing kappa light chains from various species without interfering with the antigen binding site.

Other antibodies, Protein L is also suitable for binding of a wide range of antibody fragments such as Fabs, single-chain variable fragments (scFv), and domain antibodies (Dabs) .

Protein L is immobilized by means of covalent binding that minimizes protein L leakage and allows for column re-use.

Protein L Test Kit is a Pre-Packed ready to use product for gravity flow purification and includes 100 µl of resin. This format allows the user to pretest the resin before large scale use.

Product	Protein L Agarose Resin	Protein L Test Kit
Bead Geometry & Size	Spherical, Standard:	-50 - 150 µm
Crosslinked		yes
Agarose %		4%
Coupling method	Covalent binding by reductive amination	
Static binding capacity	~10 mg human IgG/ml resin	
Antimicrobial agent	20% ethanol	
Storage Temperature	2-8°C	
Available product quantity	2 ml, 5 ml or 10 ml	



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Relative affinity of immobilized protein G for various species and subclasses of polyclonal and monoclonal IgGs1.

Binding of immunoglobulins to protein L.

Species / Subclasses	Protein L
Human	
Total IgG	+++
IgG ₁	++++
IgG ₂	++++
IgG ₃	+++
IgG ₄	++++
IgA	+++
IgA ₁	+++
IgA ₂	+++
IgD	+++
IgE	+++
IgM	+++
Cow	
Total IgG	-
IgG ₁	-
IgG ₂	-
Horse	ND
Cat	ND
Dog	ND
Chicken	
IgY	+

Species / Subclasses	Protein L
Mouse	
Total IgG	+++
IgG ₁	+++
IgG _{2a}	+++
IgG _{2b}	+++
IgG ₃	+++
IgM	+++
RAT	
Total IgG	+++
IgG ₁	+++
IgG _{2a}	+++
IgG _{2b}	+++
IgG _{2c}	+++
IgG ₃	ND
Hamster	+++
Rabbit	+
Pig	+++
Guinea-pig	
IgG ₁	ND
IgG ²	ND

ND: Not Determined

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