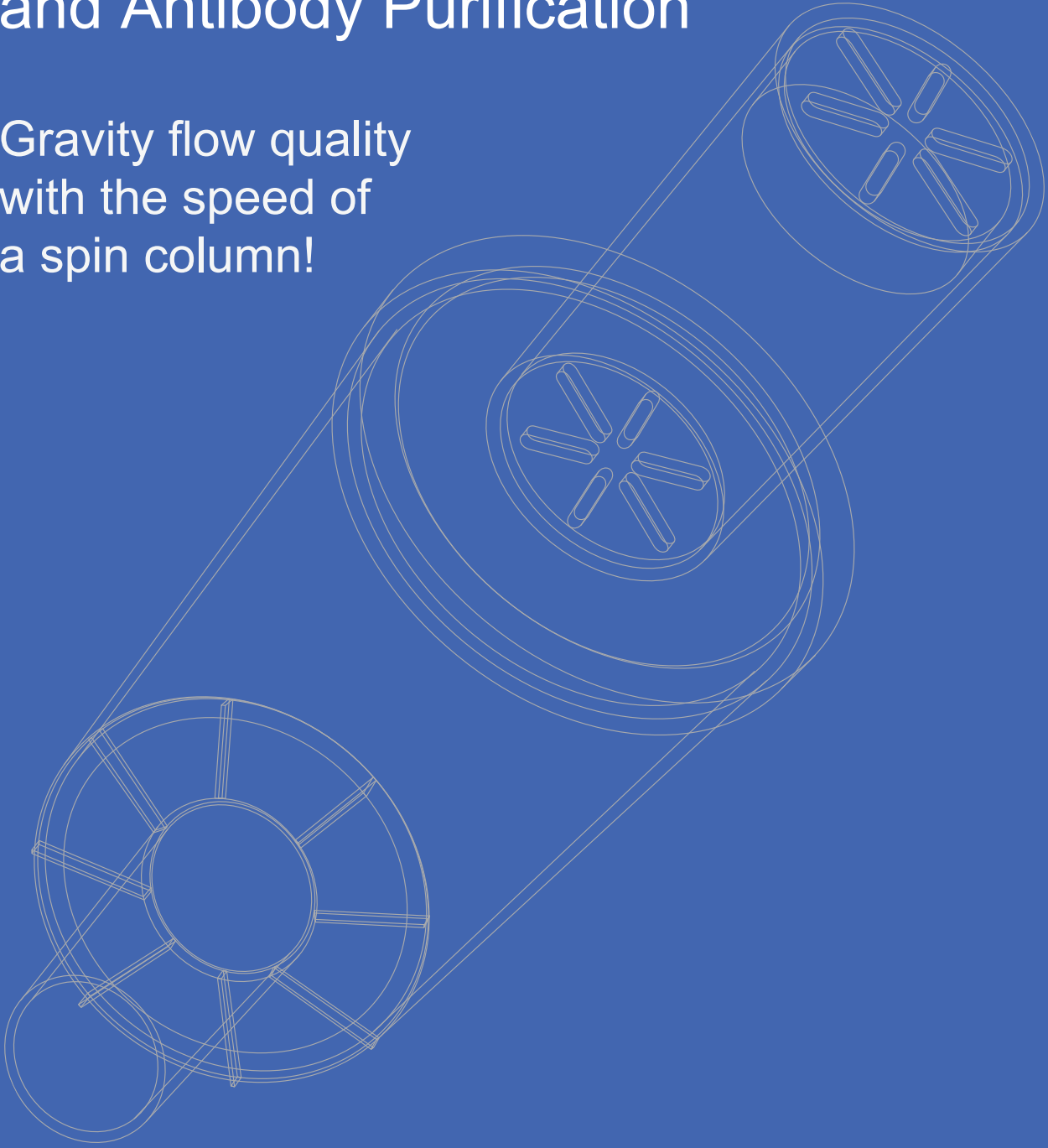


Kits for Endotoxin Removal, His-6-tagged Protein Purification, and Antibody Purification

Gravity flow quality
with the speed of
a spin column!



Proteus Spin Column Kits

Excellence in Antibodies
www.abdserotec.com



Antibody Purification Kits

Proteus MINI Kits

- From sample to pure antibody in under 20 minutes
- Ideal for small-scale antibody purification
- Ready-to-use buffers for 48 mini preps

Proteus MINI Protein A & G Antibody Purification Kits allow you to rapidly purify typically 1mg of antibody in your standard bench microfuge. They are ideal for:

- Screening antibody expression levels.
- Purification of antibodies for solution-state immunoassays, immunohistochemical and immunofluorescence studies, Western blotting and immunoprecipitation experiments.

Each Proteus Kit contains all the pre-packed spin columns, ultrafiltration units and quality assured buffers needed for rapid and efficient antibody purification - all ready-to-use, for maximum convenience and speed. Spin Column Packs containing no ultrafiltration units or buffers are also available.

Specifications

Kit	Protein A	Protein G
Typical binding capacity per use	1 mg human IgG	1 mg human IgG
Typical number of uses per plug*	3	3
Maximum sample load volume	0.65 ml	0.65 ml
Bead size range	60-165 μ m	45-165 μ m
Resin bed volume	0.23 ml	0.23 ml
Recommended working pH	pH 2.5-9.0	pH 2.0-9.0
Color coded-end caps	Red	Yellow
Source	Recombinant Protein A	Recombinant Protein G

*AbD Serotec guarantees one time use only.

Proteus MIDI Kits

- From sample to pure antibody in under 60 minutes
- High yields of functional antibodies
- Small elution volumes for high antibody concentrations

Proteus MIDI Protein A & G Antibody Purification Kits are ideal for semi-preparative purification of typically 20 mg of concentrated monoclonal and polyclonal antibodies for all downstream applications. Each Proteus Kit contains all the pre-packed spin columns, ultrafiltration units and quality assured buffers needed for rapid and efficient antibody purification - all ready-to-use, for maximum convenience and speed. Spin Column Packs containing no ultrafiltration units or buffers are also available.

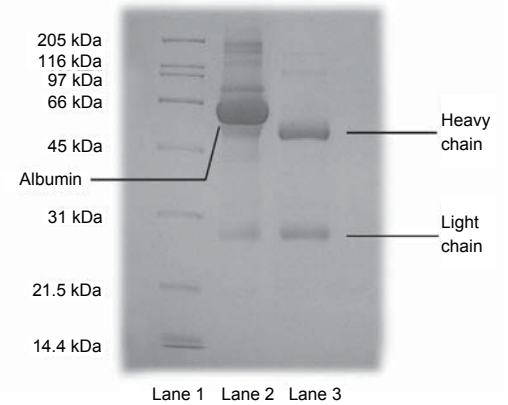
Specifications

Kit	Protein A	Protein G
Typical binding capacity per use	20 mg human IgG	20 mg human IgG
Typical number of uses per plug*	5	5
Maximum sample load volume	20 ml	20 ml
Bead size range	60-165 μ m	45-165 μ m
Resin bed volume	1.6 ml	1.6 ml
Recommended working pH	pH 2.5-9.0	pH 2.0-9.0
Color coded-end caps	Red	Yellow
Source	Recombinant Protein A	Recombinant Protein G

*AbD Serotec guarantees one time use only.

Example 1

- Lane 1: Molecular Weight Markers
- Lane 2: Human serum before loading onto the spin column
- Lane 3: Pure human IgG eluted from the Proteus Protein A spin column



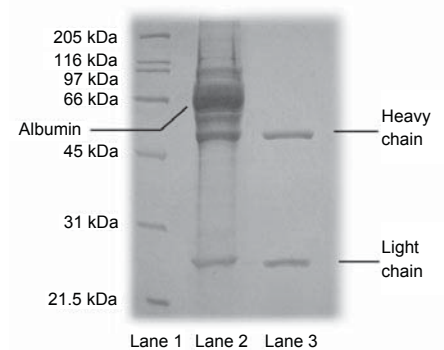
Reducing SDS-polyacrylamide gel of human IgG purified from serum with the Proteus Protein A MINI Kit.

Protein A or G?

Visit www.abdserotec.com/Proteus to view our guide to the binding affinity of different immunoglobulin classes and subclasses for Protein A and G.

Example 2

- Lane 1: Molecular Weight Markers
- Lane 2: Hybridoma cell culture supernatant before loading onto the Proteus spin column
- Lane 3: Pure mouse IgG eluted from the Proteus Protein G spin column



Reducing SDS-polyacrylamide gel of mouse IgG1 purified from cell culture supernatants (+fetal calf serum) with the Proteus Protein G MIDI Kit.

IMAC Purification Kits (for His-6-tagged proteins)

- Screen expression clones for high levels of His-6-tagged proteins
- Ideal for preparative purification of typically 20 mg of His-6-tagged proteins for structural and functional studies
- MINI and MIDI formats available

Proteus Ni-IMAC MINI and MIDI Protein Purification Kits are designed for simple, complete, and rapid purification of His-6-tagged recombinant proteins from bacterial cells, insect vectors, mammalian cells, and yeast under native or denaturing conditions.

Proteus IMAC spin columns incorporate the patented StableFlo™ technology to ensure optimum flow rates of samples and buffers through the IMAC affinity resin, and are designed for single-step affinity purification.

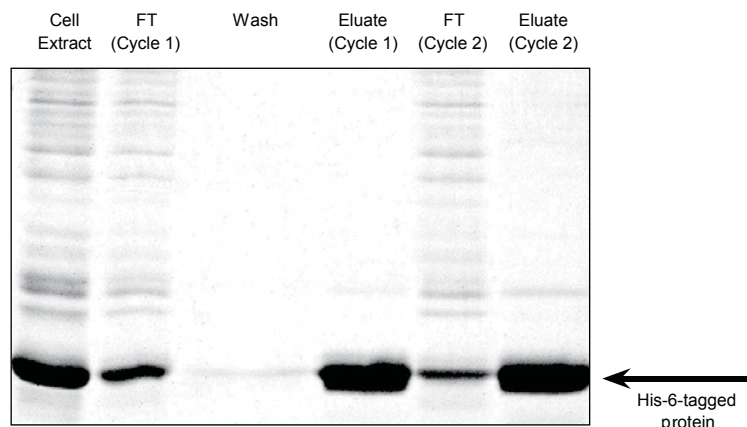
Each Proteus Ni-IMAC Kit contains all the pre-packed spin columns, ultrafiltration units and quality assured buffers needed for rapid and efficient His-6-tagged purification - all ready-to-use, for maximum convenience and speed. Spin Column Packs containing no ultrafiltration units or buffers are also available.

Specifications

Kit	IMAC MINI	IMAC MIDI
Maximum sample per load	0.65 ml, fixed angle rotor	20 ml, swing bucket rotor
Typical number of user per plug*	2	2
Typical binding capacity per use	1 mg His-6-tagged protein	20 mg His-6-tagged protein
Time to purify	15 minutes	48 minutes
Bead size range	45-165 µm	45-165 µm
Resin bed volume	0.23 ml	1.6 ml
Color coded end-caps	Black	Black
Source	Ni ²⁺ -IDA	Ni ²⁺ -IDA

*AbD Serotec guarantees one time use only.

Example 3

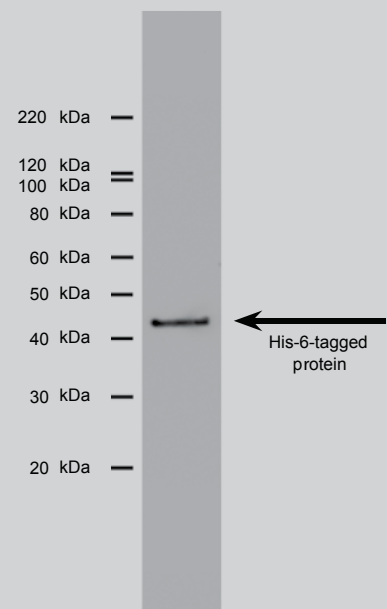


Purification of C-terminal His-6-tagged protein from *E. coli*. The IMAC spin columns were used for two consecutive separations yielding 20 mg of purified protein from each elution.

The perfect IMAC companion: our His-6 tag antibody!

To track the purification of proteins expressing a His-6 tag in bacteria, yeast or insect cells, AbD Serotec highly recommends its His-6 tag monoclonal antibody (clone AD1.1.10).

Manufactured to ISO 9001 and ISO 13485 quality, this clone does not cross-react with any endogenous bacterial products in Western blots. The antibody is available in purified format or directly-conjugated to HRP or biotin.



Western blot of His-6 tagged protein probed with mouse anti-histidine tag (MCA1396) visualized with rabbit anti-mouse IgG:HRP (STAR13B).

Endotoxin Removal Kits

Proteus MINI Kits

Proteus Endotoxin Removal MINI Kits are designed for small sample volumes and offer a standardized method for high grade removal of endotoxin from a broad spectrum of monoclonal antibodies and proteins.

Proteus Endotoxin Removal MINI Kits incorporate a proprietary membrane technology, preventing any sample leaking into the collection tube or onto an orbital mixer.

Proteus MIDI Kits

- Rapid removal of endotoxin in less than an hour
- Endotoxin binding capacity of 450,000 EU/ml
- High capacity and standard capacity formats

Proteus Endotoxin Removal MIDI Kits contain pre-packed affinity resin columns with extremely high endotoxin binding capacity, to achieve endotoxin removal effectively and quickly. These high performance kits result in more than 95% Endotoxin Removal in one passage, and greater than 90% Protein Recovery.

High capacity or Standard Capacity Columns?

Proteus Endotoxin Removal MIDI Kits are available with different endotoxin binding capacities.

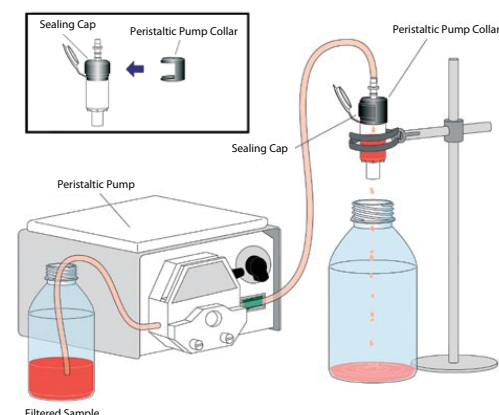
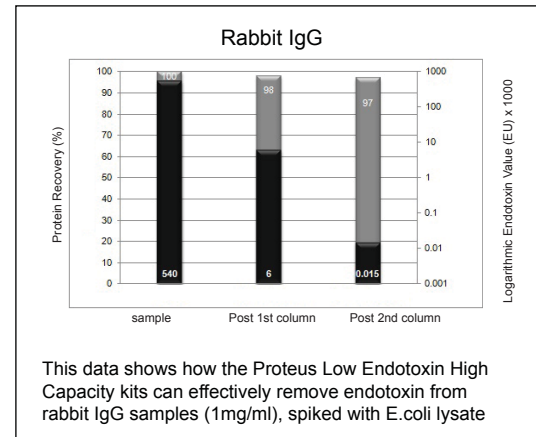
- Either kit can be used for samples with endotoxin loads less than 30,000 EU
- For samples with endotoxin loads less than 1,000,000 EU, high capacity columns are required.

Specifications

Kit	MIDI Standard Capacity	MIDI High Capacity	MINI Columns
Typical binding capacity per column	30,000 EU	500,000 - 1,000,000 EU	3,000 EU
Typical endotoxin clearance 2 passes	4 log reduction	4 log reduction	N/A
Typical endotoxin clearance (3 hour incubation)	N/A	N/A	3 log reduction
Maximum sample load volume	20 ml	20 ml	20 ml
Bead size range	100 µm	100 µm	100 µm
Resin bed volume	1 ml (pre-packed)	1.7 ml (pre-packed)	0.25 ml (loose resin)
Recommended working pH	pH 4-8	pH 4-8	pH 4-8
Color coded end-caps	Light green	Dark green	N/A

Large Sample Volumes Just Got Easier!

Large volumes of dilute cell culture supernatants (1-5 liters) can easily be loaded onto MIDI spin columns using our simple Proteus Pump Collar accessory (PUR027) for hands-free convenience. Purified proteins or antibodies can subsequently be eluted in a concentrated form by centrifugation.



Quality Separation - with Spin Column speed!

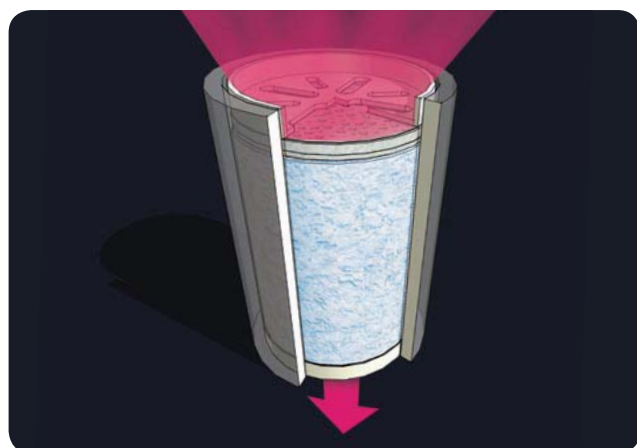
Proteus Kits combine the quality separation you expect from gravity flow columns with the speed and ease-of-use of spin columns. The unique StableFlo™ technology regulates sample movement through the high-quality affinity resin matrix, increasing both purity and yield.

Convenient	Pre-packed chromatography resin plug - no mess, no filling columns, no pumps, and no lengthy equilibrium steps! *
Easy-to-use	Full technical and application handbook supplied with every kit, plus a laminated step-wise protocol card.
Rapid	Spin column speed gives fast purification times, typically less than 1 hour. Plus multiple sample processing for rapid screening.
Flexible	MINI and MIDI format columns, plus a Peristaltic Pump Collar for loading large volumes.
Cost-effective	Re-usable columns fit in standard bench centrifuge rotors - no expensive equipment necessary. High performance typically >90% recovery, with high levels of purity.

* (Endotoxin Removal MINI Kits are supplied with loose resin)

The StableFlo™ Advantage

StableFlo™ is a unique technology using back pressure to enable a steady and controlled flow of sample and buffer through the affinity resin column during centrifugation. This powerful flow regulation technology leads to both higher antibody yields and improved purification results in comparison with similar gravity flow and spin systems. The columns are supplied pre-packed and ready-to-use, with the option of including quality controlled buffers to ensure great results, every time.



You Can't Argue With Success!

■ Easy to use

"The Proteus MINI spin columns were much easier to use, no manual manipulation of the product was required, and far less time was involved. The yields of IgG2b rat anti-mouse monoclonal antibody from ascites fluid were far higher (up to 1.4 mg/ml) - an improvement of at least 200% and sometimes 300% as compared to the old Protein G drip method we were using".

University of California Researcher (Protein G Kit)

■ Excellent yield

"I used a (Proteus) Protein A column with the Peristaltic Pump Collar and purified 28 mg mouse IgG2 from 12 liters of cell culture supernatant containing 5% FCS in 24 hours. We achieved an excellent 89% theoretical yield. This hands-free system proved to have real benefits over our existing technique. We hope to be evaluating the (Proteus) MINI Protein A spin columns for the equivalence tests shortly".

Contract Antibody Manufacturer, UK (Protein A Kit)

Ordering Information

Protein G Kits

Product Description	UF Spinners	Buffers	Quantity	Product Code
Proteus Protein G MINI Purification Starter Kit	✓	✓	2 Units	PUR014
Proteus Protein G MINI Purification Kit	✓	✓	16 Units	PUR016
Proteus Protein G MINI Purification Spin Column Pack*	✗	✗	48 Units	PUR015
Proteus Protein G MIDI Purification Kit	✓	✓	4 Units	PUR012
Proteus Protein G MIDI Purification Spin Column Pack*	✗	✗	12 Units	PUR011

Protein A Kits

Description	UF Spinners	Buffers	Quantity	Product Code
Proteus Protein A MINI Purification Starter Kit	✓	✓	2 Units	PUR006
Proteus Protein A MINI Purification Kit	✓	✓	16 Units	PUR008
Proteus Protein A MINI Purification Spin Column Pack*	✗	✗	48 Units	PUR007
Proteus Protein A MIDI Purification Kit	✓	✓	4 Units	PUR003
Proteus Protein A MIDI Purification Spin Column Pack*	✗	✗	12 Units	PUR002

IMAC Kits

Description	UF Spinners	Buffers	Quantity	Product Code
Proteus IMAC MINI Purification Kit	✓	✓	4 Units	PUR025
Proteus IMAC MINI Purification Kit	✓	✓	24 Units	PUR026
Proteus IMAC MINI Purification Spin Column Pack*	✗	✓	24 Units	PUR023
Proteus IMAC MINI Purification Spin Column Pack*	✗	✗	72 Units	PUR024
Proteus IMAC MIDI Purification Kit	✓	✓	8 Units	PUR021
Proteus IMAC MIDI Purification Kit Spin Column Pack*	✗	✓	8 Units	PUR019
Proteus IMAC MIDI Purification Spin Column Pack*	✗	✗	24 Units	PUR020

Endotoxin Removal Kits

Description	Centrifuge Tubes	High Capacity	Quantity	Product Code
Proteus Endotoxin Removal MIDI Spin Column Pack*	✓	✓	12 Units	PUR028
Proteus Endotoxin Removal MIDI Spin Column Pack*	✗	✗	12 Units	PUR029
Proteus Endotoxin Removal MIDI Spin Column Pack*	✓	✓	48 Units	PUR030
Proteus Endotoxin Removal MIDI Spin Column Pack*	✗	✗	48 Units	PUR031
Proteus Endotoxin Removal MINI Spin Column Pack*	✓	✗	12 Units	PUR032
Proteus Endotoxin Removal MINI Spin Column Pack*	✓	✗	48 Units	PUR033

Accessories

Product Description	Quantity	Product Code
IMAC Buffers	1 Pack	PUR017
Proteus Peristaltic Pump Collar	1 Each	PUR027
Protein A Buffers	1 Pack	PUR004
Protein G Buffers	1 Pack	PUR009

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* Spin Column Packs contain the following: spin column plugs, centrifuge tubes and plug insertion tools.