



# PROTEUS

## Antibody Purification



MINI



MIDI

### Binding Affinities of Protein A & Protein G

	Protein A	Protein G
Human IgG1	✓✓✓✓	✓✓✓✓
Human IgG2	✓✓✓✓	✓✓✓✓
Human IgG3	✗	✓✓✓✓
Human IgG4	✓✓✓✓	✓✓✓✓
Human IgA	✓✓	✗
Human IgD	✓✓	✗
Human IgE	✓✓	✗
Human IgM	✓✓	✗
Mouse IgG1	✓	✓✓
Mouse IgG2a	✓✓✓✓	✓✓✓✓
Mouse IgG2b	✓✓✓	✓✓✓
Mouse IgG3	✓✓	✓✓✓
Rat IgG1	✗	✓
Rat IgG2a	✗	✓✓✓✓
Rat IgG2b	✗	✓✓
Rat IgG2c	✓	✓✓

✗

No affinity

✓✓✓✓

Strong affinity

Proteus A & G kits are designed for simple, rapid and multiple antibody purification from serum, ascites and tissue culture supernatant derived from static cultures and bioreactors.

Proteus purification kits incorporate convenient, ready to use, single step affinity spin columns, offering the researcher total protein purification solutions.

### Convenient and easy-to-use

- Simply insert the pre-packed chromatography resin plug into the device and place it in the centrifuge.
- No mess, no filling columns, no attachment of accessories, no pumps and no lengthy equilibration.
- Kits are supplied with a comprehensive technical and application-supported handbook, a step-wise laminated protocol card and all necessary buffers for rapid and simple antibody purification.

### Rapid

- The purification protocols provided in the operating handbook permit fast recovery of pure antibodies.
- Multiple samples can be processed at the same time, allowing rapid screening for antibody production.

### Cost-effective

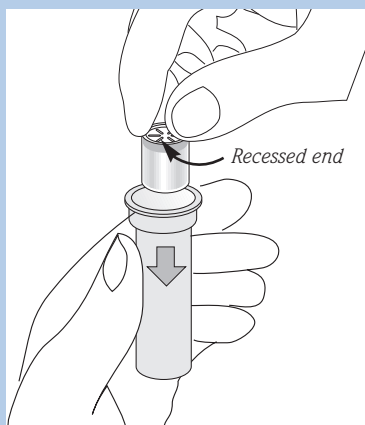
- Proteus spin columns can be used by any laboratory with access to a centrifuge.
- The Proteus columns are re-usable. Each Mini spin column can be used up to 3 times and each Midi spin column can be used up to 5 times.
- As research budgets are always under pressure, Proteus kits offer a cost-effective alternative.

### High Performance

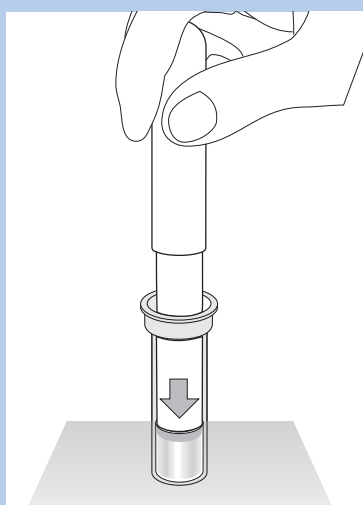
- Proteus chromatography spin columns will typically bind the target antibody with greater than 90% recovery.
- Choice of both Protein A & G for complete coverage of antibody subclasses and host species.
- Antibodies are sufficiently pure for radiolabelling, conjugation or preparation of immuno-affinity columns, ELISA and Western blots.

A NEW AND INNOVATIVE RANGE OF HIGH PERFORMANCE AGAROSE-BASED ANTIBODY PURIFICATION KITS THAT USE YOUR LABORATORY CENTRIFUGE

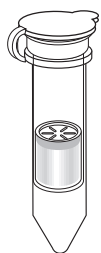
## Plug and Play Design



Place the plug into the spin column with the recessed end uppermost.



Push the plug **FULLY** into the tapered end of the spin column using the plug insertion tool.



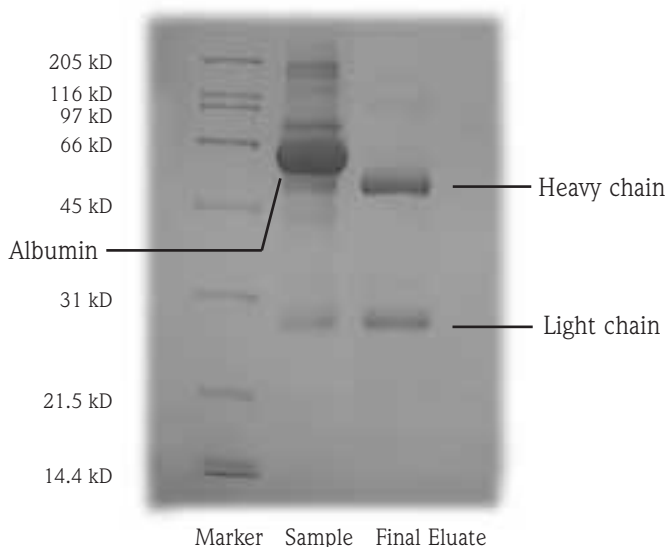
The Mini spin column is now ready for pre-equilibration with binding buffer.

The Mini Protein A & G spin column is the ideal tool for screening antibody expression and for small-scale purification of antibodies for solution-state immunoassays, immuno-histochemical and immuno-fluorescence studies, Western blotting and immuno-precipitation studies. Antibodies are purified using a powerful, patented affinity spin column using a microfuge common to all biochemistry and immunology laboratories.

## MINI SPECIFICATIONS

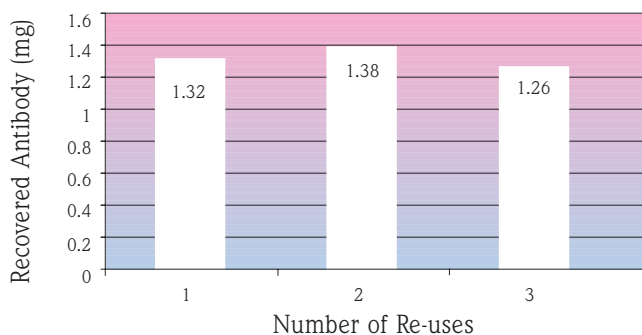
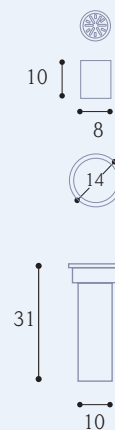
Kit	PROTEIN A	PROTEIN G
<b>Source</b>	Recombinant Protein A expressed in <i>E. coli</i> (N.B. No toxic bacterial contaminants normally found in native Protein A)	Recombinant Protein G expressed in <i>E. coli</i> (N.B. The recombinant Protein G lacks the albumin-binding domain found in native Protein G)
<b>Binding capacity per use</b>	Typically 1 mg human IgG	Typically 1 mg human IgG
<b>Typical number of uses per plug</b>	3	3
<b>Supporting Proteus matrix</b>	Covalently coupled to agarose resin	Covalently coupled to agarose resin
<b>Resin bed volume</b>	0.23 ml	0.23 ml
<b>Ligand density</b>	3.5 mg Protein A/ml resin	2 mg Protein G/ml resin
<b>Bead size range</b>	60-165 $\mu\text{m}$	45-165 $\mu\text{m}$
<b>Maximum volume</b>	0.65 ml	0.65 ml
<b>Storage temp. for resin plugs</b>	2-8 °C	2-8 °C
<b>Recommended working pH</b>	pH 2.5-9.0	pH 2.0-9.0
<b>Plastic construction</b>	Polypropylene	Polypropylene
<b>Color coded end-caps</b>	Red	Yellow

## MINI PERFORMANCE



Reducing SDS-Polyacrylamide gel of human IgG purified from serum with the Proteus Protein A kit

## DIMENSIONS (mm)

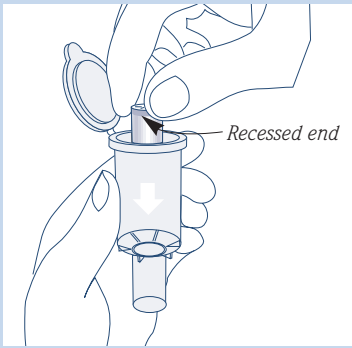


Graph showing that typical IgG capacity of Protein A **Mini** spin columns remain unaffected after 3 re-uses using rabbit serum. Low % CV.

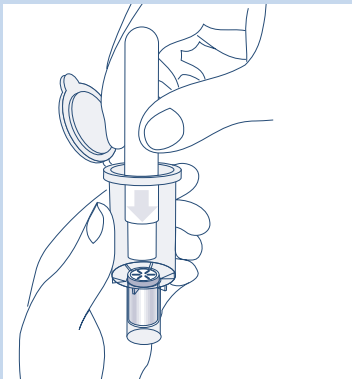
# MIDI

- Complete purification in less than 60 minutes • High yields of functional antibodies
- Concentrated antibodies purified in small elution volumes

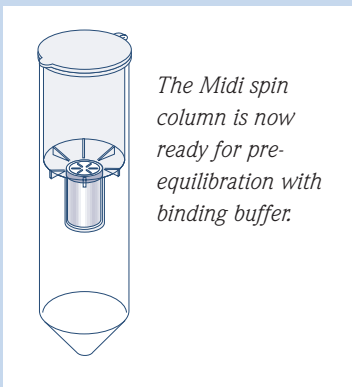
## Plug and Play Design



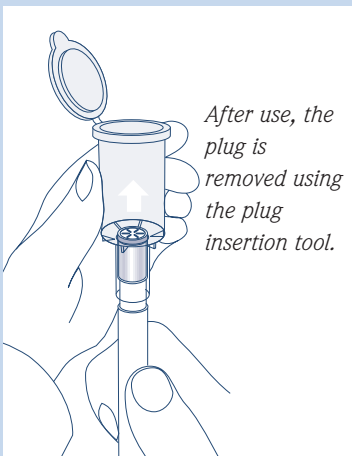
Place the plug into the spin column with the recessed end uppermost.



Push the plug **FULLY** into the tapered end of the spin column using the plug insertion tool.



The Midi spin column is now ready for pre-equilibration with binding buffer.



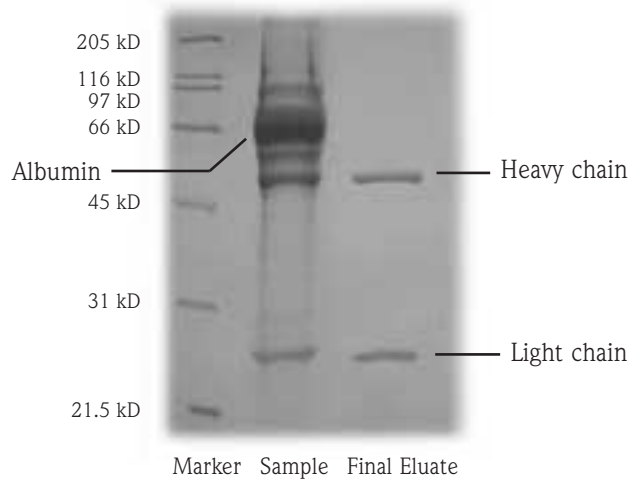
After use, the plug is removed using the plug insertion tool.

The Midi Protein A & G spin column permits semi-preparative purification of concentrated monoclonal and polyclonal antibodies for all downstream applications. Both the Mini and Midi kits contain all the resin spin columns, buffers and ultrafiltration spinners necessary for rapid and convenient purifications of your target antibodies.

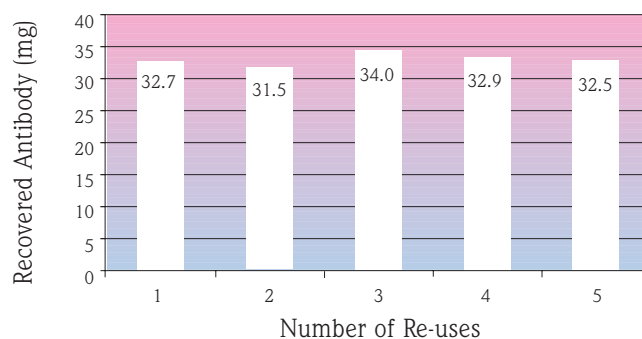
## MIDI SPECIFICATIONS

Kit	PROTEIN A	PROTEIN G
Source	Recombinant Protein A expressed in <i>E. coli</i> (N.B. No toxic bacterial contaminants normally found in native Protein A)	Recombinant Protein G expressed in <i>E. coli</i> (N.B. The recombinant Protein G lacks the albumin-binding domain found in native Protein G)
Binding capacity per use	Typically 20 mg human IgG	Typically 20 mg human IgG
Typical number of uses per plug	5	5
Supporting Proteus matrix	Covalently coupled to agarose resin	Covalently coupled to agarose resin
Resin bed volume	1.6 ml	1.6 ml
Ligand density	3.5 mg Protein A/ml resin	2 mg Protein G/ml resin
Bead size range	60-165 $\mu\text{m}$	45-165 $\mu\text{m}$
Maximum volume	20 ml	20 ml
Storage temp. for resin plugs	2-8 °C	2-8 °C
Recommended working pH	pH 2.5-9.0	pH 2.0-9.0
Plastic construction	Polypropylene	Polypropylene
Color coded end-caps	Red	Yellow

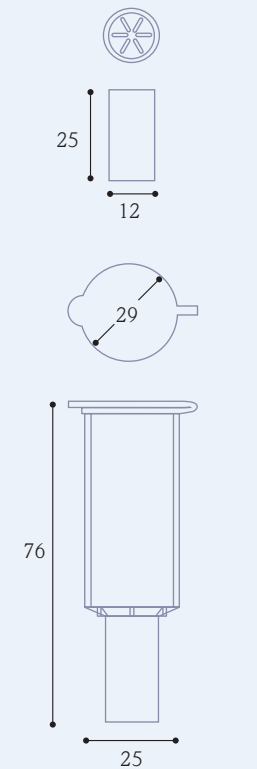
## MIDI PERFORMANCE



Reducing SDS-Polyacrylamide gel of mouse IgG1 purified from cell culture supernatant (+ foetal calf serum) with the Proteus Protein G kit

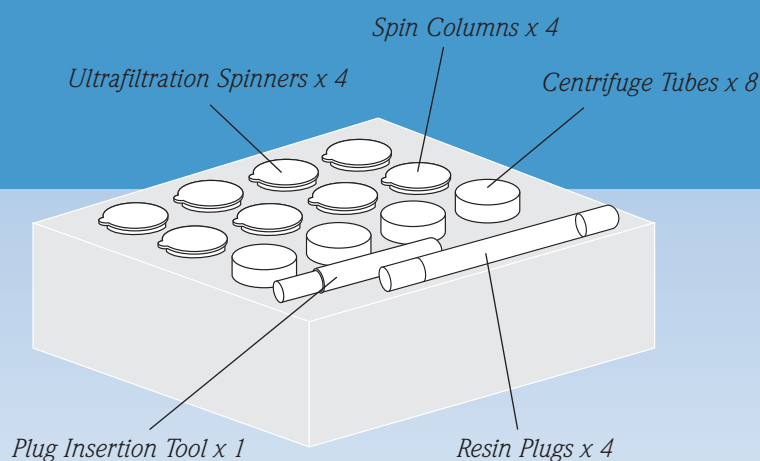
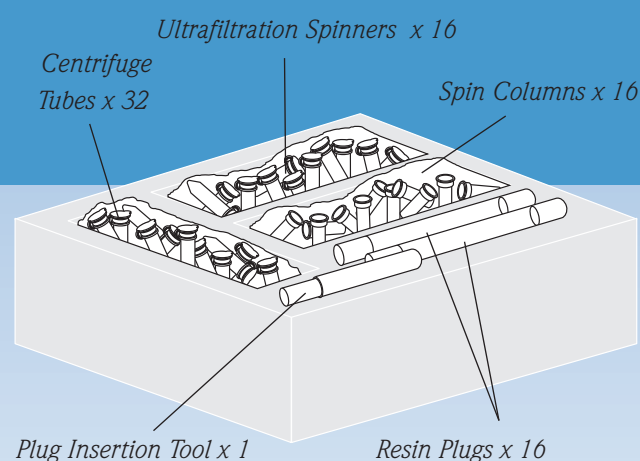


## DIMENSIONS (mm)



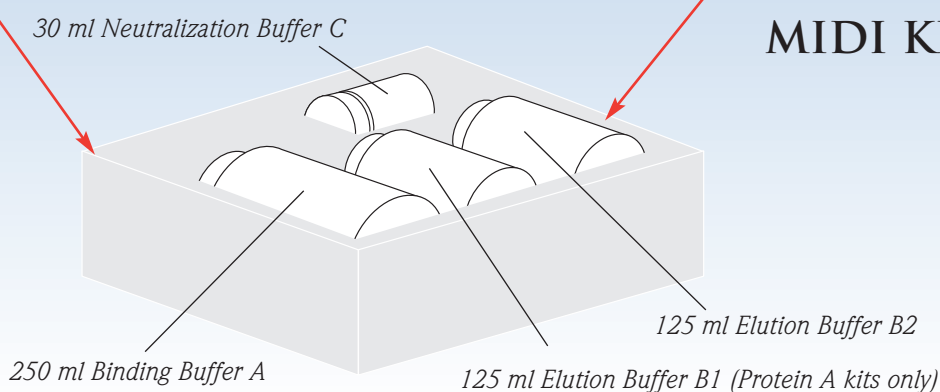
Graph showing that typical IgG capacity of Protein A Midi spin columns remain unaffected after 5 re-uses using rabbit serum. Low % CV.

# PROTEUS KIT CONTENTS



## MINI KITS

## MIDI KITS



## ORDERING INFORMATION

Mini Products	Quantity	Order codes
Mini Protein A & G Starter Pack (2 A & 2 G Spin Columns)	1	PC-MAG04
Mini Protein A Kit (16 units)	1	PC-MAK16
Mini Protein G Kit (16 units)	1	PC-MGK16
Mini Protein A Bulk Pack (48 units)	1	PC-MAC48
Mini Protein G Bulk Pack (48 units)	1	PC-MGC48

Midi Products	Quantity	Order codes
Midi Protein A Kit (4 units)	1	PC-AK04
Midi Protein G Kit (4 units)	1	PC-GK04
Midi Protein A Bulk Pack (12 units)	1	PC-AC12
Midi Protein G Bulk Pack (12 units)	1	PC-GC12

Mini and Midi Accessories	Quantity	Order codes
Protein A Buffer Pack	1	PC-BAP
Protein G Buffer Pack	1	PC-BGP



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