# HiTrap Protein G HP columns

## Product Information

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| **Cat#No#** | Hi-080P |

**Product Overview**

HiTrap Protein G HP are prepacked columns for general-purpose preparative purification of monoclonal and polyclonal antibodies from most species including rat.

**Characteristic**

First choice Protein G resin for routine purification of antibodies: ensures minimized sample dilution and high resolution.
The small bead size (34 µm) ensures narrow elution peaks containing concentrated material.
High protein recovery due to high binding capacity of 25 mg IgG/mL resin.
Broader selectivity compared with protein A ligand.
Convenient HiTrap format for easy connection to a syringe, peristaltic pump, or chromatography system such as ÄKTA system.

**Applications**

Designed for use with a syringe, peristaltic pump, or chromatography system.

**Maximum operating pressure**

5 bar [0.5 MPa] (70 psi)

**Sample preparation**

The sample should be adjusted to the composition of the binding buffer. This can be done by either diluting the sample with binding buffer or by buffer exchange using HiTrap Desalting, HiPrep 26/10 Desalting or PD-10 Desalting columns.
The sample should be fully solubilized. We recommend centifugation or filtration immediately before loading on the column to remove particulate material (0.45 µm filter).

**Matrix**

Highly cross-linked spherical agarose

**Average particle size**

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| 34 µm |
| **Ligand** |
| Recombinant protein A (E. coli), protein A or protein G |
| **Dynamic binding capacity** |
| 25 mg human IgG/column |
| **Recommended flow rate** |
| < 4 ml/min |
| **Recommended column height** |
| 25 mm |
| **Chemical stability** |
| All commonly used buffers. |
| **pH working range** |
| 3 to 9 |
| **CIP stability** |
| 2 to 9 |
| **Storage** |
| 2 to 8°C, 20% Ethanol |
| **Binding buffer** |
| 20 mM sodium phosphate, pH 7.0. |
| **Elution buffer** |
| 0.1 M glycine-HCl, pH 2.7. |
| **Purification procedures** |

1. Prepare collection tubes by adding 60 to 200 µl 1 M Tris-HCl, pH 9.0 per ml of fraction to be collected.
2. Fill the syringe or pump tubing with binding buffer. Remove the stopper and connect the column to the

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syringe (with the provided luer connector), or pump tubing, “drop to drop” to avoid introducing air into the column.
3. Remove the snap-off end at the column outlet.
4. Wash the column with 10 column volumes of binding buffer at 1 ml/min or 5 ml/min for 1 ml and 5 ml column respectively.
5. Apply the sample, using a syringe fitted to the luer connector or by pumping it onto the column.
6. Wash with 5 to 10 column volumes of binding buffer or until no material appears in the effluent.
7. Elute with 2 to 5 column volumes of elution buffer. Other volumes may be required if the interaction is difficult to break.
8. The purified fractions can be buffer exchanged using HiTrap Desalting, HiPrep 26/10 Desalting or PD-10 Desalting columns if necessary.

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| **Pack size** |
| 5 × 1 mL |
| **Maximum flow velocity** |
| 4 and 20 mL/min for 1 and 5 mL columns, respectively. |
| **Dimensions** |
| 7 × 25 mm |
| **Column volume** |
| 1 mL |
| **Column hardware pressure limit** |
| 0.5 MPa (5 bar, 70 psi) |

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