Protein A/G Plus Agarose Magnetic Particles, 30-100 µm
PRODUCT DATA SHEET

Protein A/G Plus Agarose Magnetic Particles, 30-100 µm

Cat No: AM-Protein A/G-3000

Description

Abvigen Magnetic Agarose Beads have the characteristics of superparamagnetization, rapid magnetic response, rich hydroxyl functional groups and relatively concentrated particle size, which are important carrier tools in medical and molecular biology research.

Protein A/G Plus agarose magnetic beads are complex particles formed by the covalent combination of agarose magnetic beads and Protein A/G. The product has higher antibody binding capacity and lower non-specific protein adsorption rate, and the elution conditions are more uniform, and the purity of antibodies greater than 90% can be separated from serum samples in one step. This product is a micron magnetic microsphere, does not require centrifugal operation, can greatly reduce the time required for antibody adsorption. This product is suitable for antibody purification in plasma, ascites, tissue culture supernatant and other samples, and can also be used for antibody fixation and other related studies.

Characteristics

Matrix	Magnetic agarose microspheres
Ligand	Protein A/G
Mean particle size	30~100 µm
Bead concentration	The magnetic bead volume accounts for 50% of the suspension volume
Antibody binding capacity	> 20 mg Human IgG/mL Beads
Shelf life	Stable storage at 2 ~ 8°C for two years

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Operation process

(Take purified human Serum IgG as an example)

Recommended buffer:

Binding/Washing buffer	0.5 M NaCl, 20 mM Na_2HPO_4, pH 7.0
Elution buffer	100 mM Gly, pH 3.0
Neutrilization buffer	1.0 M Tris-HCl, pH 8.5

1. Sample preparation

Make sure that the sample solution has the appropriate ionic strength and pH before submitting the sample. Dilute the serum sample, ascites, or cell culture solution with **Binding/Washing buffer**, or dialysis the sample with **Binding/Washing buffer**. Samples are recommended to be centrifuged or filtered with 0.22 μm or 0.45 μm filter membrane before loading to reduce impurities and improve protein purification efficiency.

2. Prepare magnetic beads

Protein A/G Plus agarose magnetic beads were reversed several times, mixed evenly, a certain amount of magnetic bead suspension was transferred to a centrifuge tube, placed on a magnetic rack, magnetic separation for 1 min, and the supernant was discarded. Then add 1 ~ 2 times **Binding/Washing buffer**, blow with gun head for 5 times, then place on magnetic rack, magnetic separation for 1 min, discard superwash, repeat washing for 2 times.

3. Antibody adsorption

The pre-treated magnetic beads were mixed with the sample, incubated in the turnover mixer for about 30 ~ 60 min, then placed on the magnetic rack, magnetic separation for 1 min, and the supernatant was discarded after the solution became clarified.

4. Wash impurities

Binding/Washing buffer (5 times the volume of magnetic beads) was added into the centrifugation tube, suspended in oscillation, placed on the magnetic rack, magnetically separated for 1 min, and the supernatant was discarded after the solution became clear. Repeat twice or more.

5. Eluting of antibodies

An **Elution buffer** of 3 ~ 5 times the volume of magnetic beads was added to the centrifuge tube, blown with a pipette for 5 ~ 10 min, then incubated in a turnover mixer at room temperature for 5 ~ 10 min, and then placed on a magnetic rack for 1 min magnetic separation. After the solution became clarified, the supernatant was absorbed and elution components were collected, that is, the target antibodies.

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6. Neutralize elution components

Add one-tenth of the elution volume of the **Neutrilization buffer** to the elution component and adjust the pH to 7.0 to 8.0.

7. Magnetic bead preservation

After use, the magnetic beads were re-suspended with 1 mL **Elution buffer**, then placed on the magnetic rack, magnetic separation for 1 min, and the supernatant was abandoned after the solution became clear. Repeat twice. Then 1 mL **Binding/Washing buffer** was added, magnetic beads were suspended, and placed on the magnetic rack for magnetic separation for 1 min, and the supernatum was discarded after the solution was clarified. Then add 20% ethanol according to 4 ~ 5 times the volume of the magnetic bead and store it at 2 ~ 8°C.

8. SDS-PAGE detection

Samples obtained from purified products (including flow through components, wash components, and elution components) and original samples were tested using SDS-PAGE.

Notes

1. Before performing the experiment, please read this operation manual carefully.
2. Do not centrifuge, dry or freeze magnetic beads at high speed, these operations will cause magnetic beads to gather and reduce the binding ability.
3. Magnetic beads should be fully oscillated and uniform before use. Magnetic beads should be kept in storage solution to prevent drying.
4. This product is for scientific research only.

Ordering Information

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