#A10005

# Streptavidin MagPoly beads

☐ 2ml

☐ 5ml

☐ 25ml

**Orders** 400-6123-828
orders@ab-mart.com
**Web** www.ab-mart.com.cn

## 1.Product Description

**Streptavidin MagPoly beads** are ideal for purification of biotinylated proteins and nucleic acids, immunoprecipitation, protein interaction studies, immunoassays, and cell isolation, etc.
Add the sample containing biotinylated molecules to the Streptavidin MagPoly beads and allow the molecules bind to the Magnetic Beads during a short incubation. Then separate the molecule-bound beads with a magnetic separation rack. With indirect capture, mix the biotinylated molecule with the sample to capture the molecule-target complex before adding the Magnetic Beads.

Table 1. Characteristics of **Streptavidin MagPoly beads**

| | |
|---|---|
| Matrix spherical | Ploymer beads |
| Ligand | Recombinant streptavidin |
| Particle size | 1μm |
| Binding capacity | > 3000pmol Biotin/mg Beads |
| Concentration | 30 mg/ml |
| Storage solution | 1X PBS containing 20% ethanol |
| Storage | 2°C - 8°C |

## 2.Purification Procedure

The protocol uses 100 μl Streptavidin MagPoly Beads, but this may be scaled up or down as required.

**2.1 Preparation of the Magnetic Beads**

1) Completely resuspend the beads by shaking or vortexing the vial.
2) Transfer 100 μl Streptavidin MagPoly Beads to a new tube.
3) Place the tube on a magnetic separation rack to collect the beads at tube wall. Remove and discard the supernatant.
4) Add 0.5 ml selected washing buffer to the tube and invert the tube several times to mix. Use the magnetic separation rack to collect the beads and discard the supernatant. Repeat this step twice.
Recommended washing buffers:
– nucleic acid applications: TES Buffer
– antibody/protein applications: PBS Buffer, pH 7.4

**2.2 Method for Immobilization of Biotinylated Molecules**

2.2.1 Additional Materials Required
Biotinylated sample in solution:
Binding/Wash Buffer: Nucleic acid applications: TES Buffer;
Protein/antibody applications: PBS, pH 7.4.
Elution Buffer: 8 M guanidine•HCl, pH 1.5
2.2.2 Procedure
1) Resuspend the beads in 100 μl Binding/Wash Buffer.
2) Add biotinylated sample to the beads prepared from step 2.2.1 and gently invert the tube to mix.
3) Incubate the tube at roomtemperature with mixing (on a shaker or rotator) for one hour.
4) Use the magnetic separation rack to collect the beads and discard the supernatant. If desired, keep the supernatant for analysis.
5) Add 1 ml Binding/Wash Buffer to the tube and mix well, use the magnetic separation rack to collect the beads and discard the supernatant. Repeat the wash step three times.
6) Resuspend to desired concentration in a suitable buffer for your downstream use.
2.2.3 Release of immobilized biotinylated molecules
The biotin-streptavidin bond is broken by harsh conditions. Boil the sample for 5 mins in Elution Buffer for protein dissociation. Proteins will be denatured by such treatment and Streptavidin MagPoly Beads can not be re-used.

**2.3Method for Purifying Antigens**

2.3.1 Additional Materials Required
Biotinylated antibody: Use approximately 2-3 mg of biotinylated antibody/ml settled Streptavidin MagPoly Beads
Binding/Wash Buffer: 0.1Mphosphate, 0.15 M NaCl, pH 7.0
Elution Buffer: 0.1Mglycine•HCl, pH 2.5 - 2.8
Neutralization buffer: 1MTris•HCl, pH 8.5
2.3.2 Procedure
1) Resuspend the beads in 100 μl Binding/Wash Buffer.
2) Add biotinylated antibody solution to the beads prepared from step 2.3.1 and gently invert tube to mix.
3) Incubate the tube at roomtemperature with mixing (on a shaker or rotator) for one hour.
4) Use the magnetic separation rack to collect the beads and discard the supernatant. If desired, keep the supernatant for analysis.
5) Add 1 ml Binding/Wash Buffer to the tube and mix well, use the magnetic separation rack to collect the beads and discard the supernatant. Repeat the wash step three times.
6) Resuspend the antibody bound beads in 100 μl Binding/Wash Buffer.
7) Add antigen sample to the tube and gently invert tube to mix. Incubate at roomtemperature for 30 minutes to overnight at 4°C.
8) Wash the beads with 1ml Binding/Wash Buffer. Use the magnetic separation rack to collect the beads and discard the supernatant. Repeat the wash step three times.
9) Add 100 μl Elution Buffer to the tube. Mix well and incubate for five minutes at roomtemperature with occasional mixing.
10) Use the magnetic separation rack to collect the beads and save the supernatant containing target antigen.
11) To neutralize the low pH, add 5 μl neutralization buffer to each 50 μl eluate.




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2) Add biotinylated antibody solution to the beads prepared from step 2.3.1 and gently invert tube to mix.
3) Incubate the tube at roomtemperature with mixing (on a shaker or rotator) for one hour.
4) Use the magnetic separation rack to collect the beads and discard the supernatant. If desired, keep the supernatant for analysis.
5) Add 1 ml Binding/Wash Buffer to the tube and mix well, use the magnetic separation rack to collect the beads and discard the supernatant. Repeat the wash step three times.
6) Resuspend the antibody bound beads in 100 μl Binding/Wash Buffer.
7) Add antigen sample to the tube and gently invert tube to mix. Incubate at roomtemperature for 30 minutes to overnight at 4°C.
8) Wash the beads with 1ml Binding/Wash Buffer. Use the magnetic separation rack to collect the beads and discard the supernatant. Repeat the wash step three times.
9) Add 100 μl Elution Buffer to the tube. Mix well and incubate for five minutes at roomtemperature with occasional mixing.
10) Use the magnetic separation rack to collect the beads and save the supernatant containing target antigen.
11) To neutralize the low pH, add 5 μl neutralization buffer to each 50 μl eluate.

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For *in vitro* research use only and not intended for use in humans or animals.