



# Streptavidin MagPoly Beads

## Index

1. Product Description.....	1
2. Purification Procedure.....	1
3. Related Products.....	2

## 1. Product Description

**Streptavidin MagPoly Beads** is an affinity chromatography Magnetic beads designed for easy, one-step purification of biotin or biotinylated proteins, antibodies, and other substances through the interaction between biotin and ligand. The streptavidin ligand is coupled to Magnetic beads.

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

Item	Description
Matrix spherical	Ploymer magnetic beads
Ligand	Recombinant streptavidin
Particle size	1µm
Binding capacity	> 20 µg Biotinylated IgG/mg Beads
Beads Concentration	10 mg/ml
Storage solution	20 mM Tris pH 7.4, 0.01%Tw20 (v/v) , 0.05%kv300 (v/v)
Storage	2°C - 8°C

## 2. Purification Procedure

The protocol uses 1mg **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.

#### 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 room temperature 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.





## 2.3 Method 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: 0.1 M phosphate, 0.15 M NaCl, pH 7.0

Elution Buffer: 0.1 M glycine•HCl, pH 2.5 - 2.8

Neutralization buffer: 1 M Tris•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 room temperature 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 room temperature 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 room temperature 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 10µl neutralization buffer to each 100 µl eluate.

## 3. Related Products

Product	Cat. No.	Size
Streptavidin MagPoly beads	SM017001	1ml
	SM017005	5ml
	SM017010	10ml
	SM017050	50ml
	SM017100	100ml
	SM017500	500ml
	SM01701L	1L

