Streptavidin Magarose Beads

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1. Product Description

Magarose Beads have superparamagnetism and rapid magnetic responsiveness. Peptides, proteins, antibodies, oligomeric nucleotide biological ligands can be coupled to the surface of microspheres. **Magarose Beads** is an important carrier of the medical and molecular biology research tools.

Streptavidin Magarose Beads chemically fix Streptavidin in Magarose Beads. The interaction between biotin and streptavidin ligand was used to immobilize biotin or biotinylated proteins, antibodies and other substances.

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

Item	Description
Matrix	Magnetic agarose
Ligand	Recombinant streptavidin
Binding Capacity	>120 nmol Free biotin/ml Beads 40 nmol Biotinylated peptide/ml Beads 20 μg Biotinylated antibody/ml Beads
Particle Size (μm)	30-100
Storage Buffer	1×PBS containing 20% ethanol
Magnetic beads volume	20%(V/V) slurry
Storage Temperature	2℃ - 8℃

2. Purification Procedure

2.1 Buffer preparation

Water and chemicals used for buffer preparation should be high purity. It is recommended to filter the buffers by passing them through a 0.22μm or 0.45 μm filter before use.

Binding of biotin or biotinylated substances

Binding Buffer: 20mM NaH_2PO_4, 0.15M NaCl, pH7.4

Elution Buffer: 8MGuanidine-HCl, pH1.5

Note: The harsh elution condition may affect the activities of the sample and the ligand. Streptavidin Beads 6FF cannot be re-used after elution under these conditions.

Purification of iminobiotinylated subatances

Binding Buffer: 50mM ammonium carbonate, 0.5M NaCl, pH10.0

Elution Buffer: 50mM ammonium acetate, 0.5M NaCl, pH4.0

2.2 Sample preparation

The sample should be adjusted to the composition of the binding buffer. This can be done either by diluting the sample with binding buffer or by buffer exchange. The sample should be filtered through a 0.22um or 0.45 μm filter or centrifuged before use.

2.3 Purification

2.3.1 Preparation of the Magnetic Beads

1) Completely resuspend the beads by shaking or vortexing the vial.

2) Transfer appropriate amount **Streptavidin Magarose Beads**(20% v/v) into a clean tube.

3) Place the tube on a magnetic separation rack to collect the beads. Remove and discard the supernatant.

4) Add Binding/Wash 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.

2.3.2 Sample Purification

1) Add the sample solution to the magnetic bead pretreated in Step 2.3.1, swirl and mix evenly. Place the sample on a rotator at room temperature. After about 30min, Use the magnetic separation rack to collect the beads and discard the supernatant.

2)Add 5 column volumes Wash Buffer to the centrifuge tube,swirl and mix evenly, and place the centrifuge tube on the magnetic separation rack for 1minute to collect the beads. Remove and discard the supernatant. Repeat the washing for 2 times.

3)Elution: Add 300μl elution buffer into the centrifuge tube, blow it with a pipette 5 times, and then place the centrifuge tube in a turning mixer at room temperature or gently turn it manually. 5-10 min later, place it on a magnetic separator for about 1 min. After the solution is clarified, the collected elution components are the target proteins. Repeat the operation 2-3 more times to collect elution components separately and leave them for testing.

3. Related Products

Product	Cat. No.	Size
Streptavidin Magarose Beads	SM007000	0.2 ml
	SM007002	2 ml
	SM007005	5 ml