His-tag protein purification beads

DESCRIPTION

His-tag protein purification beads posses superparamagnetism, it is a new functional material
designed for efficient and rapid purification of His-tag protein. It can extract the target protein with high purity from the biological samples in one step using magnetic separation method and it greatly simplifies the purification process and improves the efficiency of purification. This method is suitable for scientific research and industrial areas to facilitate the purification of his-tag protein.

PRODUCT INFORMATION

Cat No	BMB-30-His
Product name	His-tag protein purification beads
Bead size	30 um
Concentration	10 mg/ml
Surface	IDA-Ni
Capacity	≥40 mg His-tagged Protein / mL
Application	Isolate or purify proteins with histidine tags
Storage	Stored at 2 ~ 8 ℃
Shelf Life	2 years

Features

Low non-specific adsorption

Good purification effect for small volume samples

Easy to carry out screening experiments with high repeatability

Convenient to enlarge or reduce the scale of protein purification

High protein load

High protein purity after purification

OPERATING PROCEDURES

(Can be adjusted according to the actual situation)

1 Magnetic beads and protein binding

Take an appropriate amount of magnetic beads in a centrifuge tube, wash three times with Binding Buffer, and re-disperse with Binding Buffer. Mix the broken and lysed bacterial liquid with the magnetic beads, and place on the mixer to mix for 30 minutes.

2 Wash magnetic beads

After 30 minutes, put the centrifuge tube on the magnetic separator, separate the magnetic beads, and take out the supernatant for testing. Add Washing Buffer to the magnetic beads, turn over several times to resuspend the magnetic beads, separate by magnetic attraction, and take out the Washing Buffer for testing.

Then add Washing Buffer to resuspend the magnetic beads, and transfer the magnetic beads to a new centrifuge tube (to avoid protein contamination). Magnetically separate, take out and merge Washing Buffer.

3 Elution of target protein

The user can change the elution volume as needed to adjust the concentration of the target protein. Add Elution buffer, gently flip the centrifuge tube to suspend the magnetic beads, magnetically attract, and collect the eluate into a new centrifuge tube, which is the purified target protein. Repeat several times to make sure that the target protein is completely eluted.

4 Regeneration of magnetic beads

After the magnetic beads are used three times, the capacity may be significantly reduced, and it is recommended to regenerate them. If you need to regenerate the magnetic beads, you can do the following:

a) Disperse the magnetic beads in a phosphate buffer (20 mM, pH 7.4) containing 0.1 M EDTA, shake for 10 minutes at room temperature, magnetically discard the supernatant, and repeat once.

b) Wash the magnetic beads several times with high-purity water to ensure that there is no EDTA in the solution.

c) Wash the magnetic beads with 0.5 M NaOH, 2 M NaCl solution, shake for 5 min at room temperature, magnetically absorb, discard the supernatant, and wash the magnetic beads with high-purity water until the washing solution is neutral.

d) Use 0.1 M NiSO4 solution to disperse the magnetic beads, and shake at room temperature for 10 minutes, magnetically discard the supernatant, and wash the magnetic beads several times with high-purity water until there are no Ni ions in the solution. Store the beads in 20% ethanol.

Note

(1) Users can retain the removed supernatant to analyze the purification process and optimize the protein purification process;

(2) The freezing, drying and high-speed centrifugating and other operations should be avoided during theusage and storage of the beads ;

(3) Before using this product, be sure to fully oscillate the beads to maintain a uniform suspension;

(4) Please use pipette tip and centrifuge tube with good quality to avoid the stick on the wall or beads loss caused by tube leakage during the mixing process;

(5) In the process of mixing the beads and the solution, if the solution is viscous, the magnetic beads cannot be resuspended by fliping the centrifuge tube, using short-term vortex mixing to make the

beads fully resuspended;

(6) When the used magnetic beads are reused, it is recommended to purify the same kind of proteins, when purifying different kinds of proteins, it is recommended to use new magnetic beads;

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