Concanavalin A (ConA) Magnetic Particles, 200 nm
PRODUCT DATA SHEET

Concanavalin A (ConA) Magnetic Particles, 200 nm

Cat No: AM-ConA-20

Description

Concanavalin A (ConA) magnetic beads are 200 nm nano magnetic beads that covalently bind a large amount of concanavalin A (ConA) on the surface. Nano-sized magnetic beads provide a large specific surface area, with more binding sites, less magnetic beads, and low non-specific adsorption rate. It can be used for the separation of cells or glycoproteins from serum and cell extracts, and can be easily applied to the separation of glycoproteins, CUT&RUN, CUT&Tag and other related experiments with the help of magnetic separation equipment such as magnetic rack.

For custom sizes, formulations or bulk quantities please contact our customer service department.

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Characteristics

Matrix	Silicon based magnetic particles
Ligand	Concanavalin A (ConA)
Particle size	200 nm
Concentration	10 mg/mL
Binding ability	≥ 0.9 mg glycoprotein/mL magnetic particles
Scope of application	Separate glycoprotein, CUT&RUN, CUT&Tag
Shelf life	Stable storage at 2 ~ 8°C for 2 years

Operation process

Self-prepared reagent:

Buffer	**Formula**
Binding buffer	1 × PBS, 1 mM $MgCl_2$, 1 mM $MnCl_2$, 1 mM $CaCl_2$ (pH 7.4)
Wash buffer	1 × PBS, 1 mM $MgCl_2$, 1 mM $MnCl_2$, 1 mM $CaCl_2$ (pH 7.4), 0.1% Tween 20
Elution buffer	5 mM Tris (pH 8.0), 0.15 M NaCl, 0.05% SDS, 1 M Glucose

A. Sample processing

1. Prepare mammalian cells (1.0×10^4~1.0×10^5), centrifuge them (at room temperature, 600×g, 3~5 min), and carefully discard the supernatant;

2. Add 500 µL binding buffer, thoroughly mix the suspension cells, centrifuge and collect (at room temperature, 600×g, 3~5 min), and carefully discard the supernatant;

3. Add 200-500 µL binding buffer, add protease inhibitor, mix well, and re-suspend cells.

B. Pre-processing of magnetic beads

4. Gently blow canadin A magnetic beads with a pipette to mix them well, place 10 µL magnetic bead suspension (the amount of magnetic beads can be adjusted as appropriate) into a new 1.5 mL centrifugation tube, and then stand on the magnetic rack for 1 min. After the magnetic beads are adsorbed on the side wall of the centrifugation tube, the supernatant is absorbed;

5. Add 500 µL bonding buffer, gently blow the resuspended magnetic beads with a pipette, and then stand on the magnetic rack for 1min. After the magnetic beads are absorbed on the side wall of the centrifugal tube, the supernatant is absorbed and discarded;

6. Repeat Step 5.

Note: When dealing with multiple samples, the total number of magnetic beads required can be pretreated before being divided into individual reaction tubes.

C. Combination of samples

7. The pre-treated magnetic beads were mixed with the cell samples treated in step 3, incubated on the rotating mixer (30 min at room temperature or overnight at 4°C), and then stood on the magnetic rack for 1 min. After the magnetic beads were adsorbed on the side wall of the centrifuge tube, the supernatant was carefully absorbed and discarded, that is, the protein-magnetic bead complex;

D. Washing

8. Add 500 µL washing buffer to the protein-magnetic bead complex obtained in step 7, gently blow the magnetic bead with a pipette, and incubate it on a rotating mixing device for 5 min, then stand on the magnetic rack for 1 min, and then discard the supernatant after the magnetic bead is adsorbed on the side wall of the centrifuge tube. Repeat this step two more times;

E. Protein elution

9. Add 50~250 µL elution buffer to the protein-magnetic bead complex obtained in step 8, incubate it on the rotating mixer (10~30 min at room temperature), and then stand on the magnetic rack for 1 min. After the magnetic bead is adsorbed on the side wall of the centrifuge tube, the supernatant is

collected, that is, the target protein. If the elution effect is not good, you can repeat elution once, or increase the incubation time.

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. Avoid using reagents containing EDTA or other metal chelators, otherwise it will reduce the binding efficiency of magnetic beads and proteins.
4. Magnetic beads should be fully oscillated and uniform before use. Magnetic beads should be kept in storage solution to prevent drying.
5. This product is for scientific research only.

Ordering Information

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