Concanavalin A (ConA) immunomagnetic beads

Cat. No: EA-IP-014M **Size: 1 mL**

Note: *Do not centrifuge and use after mixing gently.*

Performance metrics

Scope of application	Purification and separation of cells, nuclei, or glycoproteins containing corresponding glycosylation modifications.
Magnetic beads properties	Agarose coated superparamagnetic beads with an average particle size of 3 μm.
Binding capacity	0.5mL magnetic beads, covalently conjugated to 2mg Con A.
Components	0.25mL Concanavalin A (ConA) magnetic beads, stored in 0.75mL PBS containing 0.2‰ sodium azide.

Matters Needing Attention

1. This product is limited to scientific research by professionals and cannot be used for clinical diagnosis or treatment.
2. For your safety and health, please wear laboratory clothes and disposable gloves for operation.
3. This product is in the form of gel suspension, and the content of affinity gel is 50%. Before use, gently re-suspend the gel suspension, and then use it as required.
4. It is best to prepare and use the IP-WB sample on site to avoid affecting the experimental results.
5. Do not dry the gel, do not sonicate the gel, and do not allow the acid treatment of gel to exceed 10 minutes.
6. The amount of gel mentioned in the method is the demonstration amount prepared in small quantities, and the specific amount should be adjusted according to the actual situation.

Method of Application

1. Sample preparation

a. According to the purpose of the experiment, select an appropriate cell lysis buffer for lysis of cells or tissue samples. Make sure the pH of the lysis solution is 6 to 8 and does not contain strong reducing agents.

b. The lysis buffer should be placed on ice or stored at 4ºC. For specific cell or tissue sample lysis steps, please refer to the instructions for use of the lysis solution. For freshly prepared samples, it is recommended to complete immunoprecipitation and other operations on the same day. If the sample cannot be used on the same day, it can be appropriately aliquoted and frozen at -80ºC.

c. It is recommended to dilute the sample with 1×PBS to a final target protein concentration of 10-100μg/mL, and store it at -20ºC for use.

2. Preparation of Con A immunomagnetic beads

a. Gently re-suspend the Con A magnetic beads, mix evenly, and take 40 μL of the magnetic bead suspension (containing approximately 10 μL of magnetic beads) into a centrifuge tube.

b. Add 500 μL of 1×PBS to gently re-suspend and wash magnetic beads, let stand on the magnetic stand for 10 seconds, discard the supernatant, and repeat the above steps twice.

Note: For multiple samples, the magnetic beads can be re-suspended and divided into several reaction tubes for separate reactions.

3. Binding of magnetic beads to antigen

a. Add 50-200 μL of lysis buffer containing the target protein to the magnetic beads washed in step 2b, and incubate on a shaker at room temperature for 2 hours or overnight at 4ºC.

b. Perform magnetic separation, transfer the supernatant to a new centrifuge tube for later use; add 500 μL 1×PBS to the magnetic bead precipitation, mix gently, wash the magnetic beads, magnetically separate, discard the supernatant, and repeat twice.

c. Add 1×PBS according to the initial volume of magnetic beads, add protein loading buffer in proportion, boil for 5 minutes, cool to room temperature and centrifuge.

d. Take the supernatant and run SDS-PAGE in preparation for subsequent Western Blot detection.

Background

Concanavalin A (ConA) immunomagnetic beads are made of high-quality Con A plant mitogen covalently conjugated to magnetic beads. They can quickly, efficiently, sensitively and specifically bind α-D-mannose and α-D-glucosyl residues, and can be used to separate components containing corresponding glycosylation modifications, such as cells, nuclei, or glycoproteins. The purified product obtained can be used for detection and analysis by Western-blot, mass spectrometry, etc.

Storage

4°C for 12 months.

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017
Web: www.elabscience.com Email: techsupport@elabscience.com