BeaverBeads™ Streptavidin

Product Introduction

(SA-Biotin) system has extremely high binding affinity (Kd=10^-15). It has widely applications in the biological field. BeaverBeads™ Streptavidin covalently connects the SA to the solid carrier surface by using the patented protein coupling technique of Beaver, which can efficiently bind the ligands such as biotinylated antibodies, nucleic acids, proteins etc. The product adopts superparamagnetic microspheres with uniform size and regular morphology, which facilitates the rapid and convenient capture of target molecules and the realization of magnetic separation. This product can be equipped with automation equipment for high flux operation.

Product Information

Product Information	BeaverBeads™ Streptavidin (300nm)
Biotinylated IgG Binding Capacity	> 2 μg/mg beads
Bead Concentration	10 mg/mL
Bead Surface	hydrophilic group
Preservative Solution	1×PBS(10mM PBS) pH 7.4, including 0.1%（v/v）Tween -20，0.1%（w/v）NaN_3
Storage Condition	2~8℃
Shelf Life	12 months

Product Application Area

Suitable for IVD industry.

Chemiluminescence Immunodiagnostic Process

(this process takes a two-step double antibody sandwich CLIA as an example)

1. Preparation

- Reagents: capture antibody, analyte standard, enzyme-labeled antibody, substrate solution, etc., adjust to room temperature before using.
- Washing Buffer: Adjust it to room temperature before using.
- Chemiluminescent 96-well flat bottom microtiter.
- 96-well flat bottom magnetic separator: Beaver magnetic separator, Cat. No.60302.
- Vortex generator.
- Vacuum suction pump.
- Chemiluminometer
- Pipette.

2. Magnetic Particle Cheiluminescence Immunodiagnostic Process

- 1. Make sure that the beads have been adjusted to the proper concentration(0.8 mg/mL). Place the beads on the vortex generator for 20s and resuspend the beads with oscillation. Pipette 50 μL magnetic beads of the appropriate concentration into a 96-well plate, magnetic separation, discard the supernatant with a pipette, remove 96-well plate from the magnetic separator.
- 2. Add 100 μL biotinylation capture antibody, fully resuspend the magnetic beads, incubate at 37°C for 15 min, magnetic separation, discard the supernatant with a pipette, and remove 96-well plate from the magnetic separator.
- 3. Add 200 μL Washing buffer in each well, fully resuspend the magnetic beads, magnetic separation, discard the supernatant with a pipette, and remove the 96-well plate from the magnetic separator, and repeat this step 2 times, totally wash 3 times.
- 4. Add 50 μL tested standard sample or tested sample in each well, fully resuspend the magnetic beads, incubate at 37°C for 15 min, magnetic separation, discard the supernatant with a pipette and remove 96-well plate from the magnetic separator.
- 5. Add 200 μL Washing buffer in each well, fully resuspend the magnetic beads, magnetic separation, discard the supernatant with a pipette, and remove the 96-well plate from the magnetic separator, and repeat this step 2 times, totally wash 3 times.
- 6. Add 100 μL enzyme-labeled antibody, fully resuspend the magnetic beads, incubate at 37°C incubator for 15 min, magnetic separation, discard the spernatant with a pipette, remove 96-well plate from the magnetic separator.
- 7. Add 200 μL Washing Buffer in each well, fully resuspend the magnetic beads, magnetic separation, discard the supernatant with a pipette, remove the 96-well plate from the magnetic separator, and repeat this step 2 times, totally wash 3 times.
- 8. Add 150 μL substrate solution in each well, fully resuspend the magnetic beads, and incubate for 5 min in the dark.
- 9. Place the 96-well plate into the chemiluminometer and perform the appropriate data processing.

Note

1. Avoid drying, freezing and high-speed centrifugation of beads
2. In order to reduce the loss of magnetic beads, the time of magnetic separation should be no less than 1 min.
3. Recommend to use a low-adsorption pipette tip and reaction tube to avoid loss due to adherent beads and solutions.
4. Binding capacity of magnetic beads and biotinylated molecules are related to the size of the molecular weight. Users need to determine the loading of magnetic beads on specific biotinylated molecules according to experiments.
5. This operation process is suitable for manual chemiluminescence immunoassay. If using automatic or semi-automated chemiluminometers operation, please refer to the instrument manual.
6. This product is for research and use only.

Product List

Cat. No.	Product Name	Specification
22308-1	BeaverBeads™ Streptavidin	300 nm, 1 mL, 10 mg/mL
22308-10	BeaverBeads™ Streptavidin	300 nm, 10 mL, 10 mg/mL
22308-100	BeaverBeads™ Streptavidin	300 nm, 100 mL, 10 mg/mL
60201	Magnetic Separator Stand 2/15	1/Pk., suitable for 1.5 mL, 2 mL EP tubes and 15 mL centrifuge tubes
60203	Magnetic Separator Stand 50	1/Pk., suitable for 50 mL centrifuge tubes
60304	Magnetic Separator Stand 96 III	1/Pk., suitable for 96 hole Deep-well Multiwell Plate