Bio-Adembeads *rec*-Streptavidin 0343

For research use only

PRODUCT DESCRIPTION

Bio-Adembeads *rec*-Streptavidin are monodispersed and superparamagnetic particles coated with recombinant streptavidin. They are produced under aseptic conditions and are supplied in an aqueous suspension containing 0.05% Proclin 300.

Physical characteristics

Diameter : 300 nm (CV max 20%)

Density : approx. 2.0 g/cm^3

Magnetisation at saturation : approx. 40 emu/g

Specific surface area : 10 m^2/g

Iron oxide content : approx. 70%

Solid content : 5 mg/ml

Streptavidin

Streptavidin is a recombinant protein (MW~ 56,000Da) isolated from *E.Coli* composed of four identical subunits. Each one can bind a molecule of biotin with a high affinity (K_a = 10^{15} M^{-1}). Specific activity is >17.0 U/mg protein.

Binding Capacity

Bio-Adembeads *rec*-Streptavidin bind more than 1200 pmoles of biotin per mg.

PRINCIPLE

Bio-Adembeads *rec*-Streptavidin are used for binding biotinylated ligands such as oligonucleotides, nucleic acids or proteins. Their high iron oxide content associated with the powerful streptavidin-biotin interaction; make Bio-Adembeads *rec*-Streptavidin a very efficient tool for separation assays.

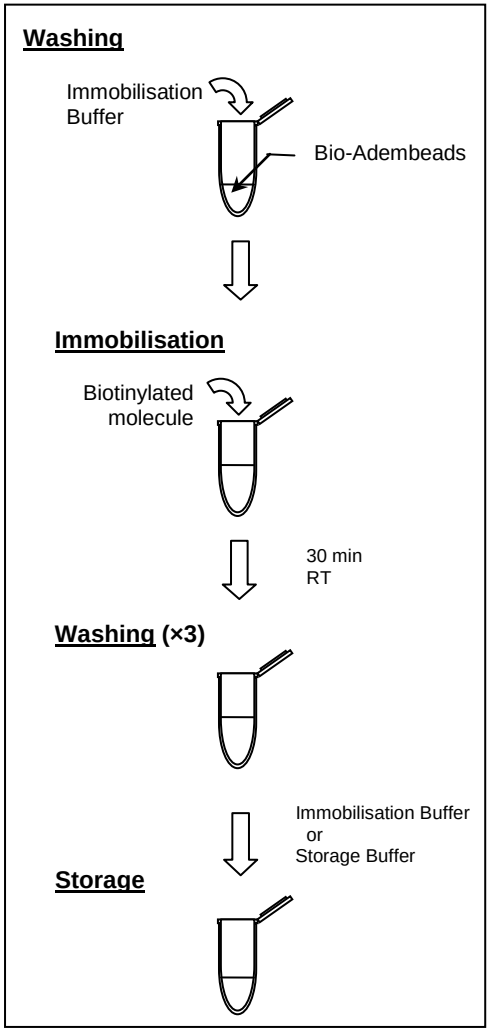
INSTRUCTION FOR USE

A) Washing procedure

1. Resuspend the Bio-Adembeads *rec*-Streptavidin by pipetting and vortexing. Avoid foaming.
2. Pipette the volume to be used into the desired test tube.
3. Place the tube in a magnet (see Related Products) for 1min.
4. Pipette off the supernatant carefully, leaving beads undisturbed.
5. Remove the test tube from the magnet (see Related Products) and resuspend the beads carefully in the original sample volume with adequate buffer (Immobilisation Buffer recommended, see Related Products).

B) Immobilisation of biotinylated molecules

1. Wash the Bio-Adembeads *rec*-Streptavidin twice with Immobilisation Buffer pH 7.
2. Resuspend the beads in Immobilisation Buffer to a final concentration of 5mg/mL.
3. Add the biotinylated molecule, and incubate at room temperature 30min under gentle rotation.
4. Place the tube in a magnet for 1-2min.
5. Pipette off the supernatant carefully, leaving beads undisturbed.
6. Wash 3 times with Immobilisation Buffer for an immediate use (or with the storage Buffer), and resuspend to the desired concentration.



ADDITIONAL MATERIAL REQUIRED

- Magnetic device
- Rotation device
- Test tubes
- Related products: Buffers solutions
  - *Storage Buffer (#10201)*
  - *Immobilisation Buffer (#10301)*

  Magnetic Devices
  - Adem-Mag SV, 1.5 ml (# 20101)
  - Adem-Mag MV, 15 ml (# 20102)
  - Adem-Mag HV, 50 ml (# 20103)

STORAGE/STABILITY

When stored in unopened vials at 2-8°C, Bio-Adembeads are stable until expiration date printed on the label.
The Bio-Adembeads must be maintained in liquid during storage and all handling steps. Drying will result in reduced performance. Do not freeze the product.

PRECAUTIONS

Precautions should be taken to prevent bacterial contamination of protein-coated Adembeads.
If cytotoxic preservatives are added these must be carefully removed before use by washing.

WARNINGS AND LIMITATIONS

For in vitro research only. Not for use in human diagnostic or therapeutic procedures.

Proclin 300 is toxic if ingested. **Avoid pipetting by mouth**.

WARRANTY

The products are warranted to the original purchaser only to conform to the quality and contents stated on the vial and outer labels for duration of the stated shelf life.
Ademtech's obligation and the purchaser's exclusive remedy under this warranty is limited either to replacement, at Ademtech's expense, of any products which shall be defective in manufacture, and which shall be returned to Ademtech, transportation prepaid, or at Ademtech's option, refund of the purchase price.

Claims for merchandise damaged in transit must be submitted to the carrier.

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