

INSTRUCTION FOR USE

Bio-Adembeads Streptavidin ADE-0312

For research use only

PRODUCT DESCRIPTION

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

Physical characteristics

Diameter : 200 nm (CV max 20%)

Density : approx. 2.0 g/cm³

Magnetic susceptibility : approx. 40 emu/g

Specific surface area : 15 m²/g

Iron oxide content : approx. 70%

Solid content : 5 mg/ml

Streptavidin

Streptavidin is a protein (MW ~ 66,000Da) isolated from *Streptomyces avidinii* composed of four identical subunits. Each one can bind a molecule of biotin with a high affinity ($K_a = 10^{15} M^{-1}$).

Binding Capacity

Bio-Adembeads bind more than 600 pmoles of biotin per mg.

PRINCIPLE

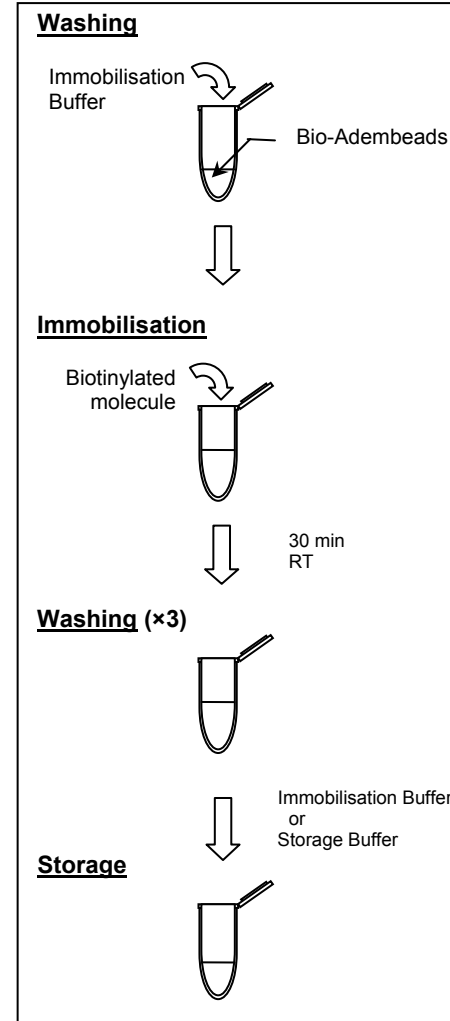
Bio-Adembeads Streptavidin are used for binding biotinylated ligands such as oligonucleotides, nucleic acids or proteins. Their high iron oxide content associated with the powerful streptavidin-biotin interaction, make Bio-Adembeads Streptavidin a very efficient tool for separation assays.

A) Washing procedure

1. Resuspend the Bio-Adembeads 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 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.



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.

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)



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