INSTRUCTION FOR USE

The functional amino groups of Amino-Adembeads offer the possibility for many different immobilisation procedures for use with proteins or other ligands via activation with carbodiimide or bi-functional reagents for example.

A) Washing procedure for Amino-Adembeads

1. Resuspend the Amino-Adembeads (1%) by pipetting and vortexing. Avoid foaming.
2. Pipette the volume to be used into the desired test tube and complete to obtain a solution at 1% with the Amino 1/2 Activation Buffer 1X of choice according to the preferred conjugation method.
3. Place the tube in a magnet (see Related Product) for 1min.
4. Pipette off the supernatant carefully, leaving beads undisturbed.
5. Remove the test tube from the magnet (see Related Product) and resuspend the beads carefully in the Amino 1/2 Activation Buffer 1X to obtain a solution at 1%. Mix well for 1min.

B) Coating procedure using CDI activation : immobilisation of antibodies

The Amino-Adembeads can be coupled with proteins via EDC (1-ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride, MW=191.7) that reacts with the carboxylic acid groups to form an amine-reactive intermediate.

1. Wash the Amino-Adembeads with Amino 1 Activation Buffer 1X as described below (final concentration 1%)
2. Dissolve the EDC in Amino 1 Activation Buffer 1X (4mg/ml). Add the required volume of EDC solution to the beads (80µl/mg beads). Vortex to mix properly.
3. Add 10-50µg of antibodies per mg beads. Vortex to mix properly.
4. Incubate for 1h to 2h at 37°C under shaking.
5. Dissolve Bovine Serum Albumin (BSA) in Amino 1 Activation Buffer 1X (0.5mg/ml).
6. Add 100µl of BSA solution to 1 mg of Ab-coated beads. Vortex to mix properly.
7. Incubate for 30min at 37°C under shaking.
8. Wash the beads with the Storage Buffer twice and resuspend the beads at the desired concentration.

C) Coating procedure using bi-functional reagents : immobilisation of antibodies

The Amino-Adembeads can be activated with EGDE (Ethylene Glycol Diglycidyl Ether, MW=174.2) that reacts with the amino groups to form an epoxy intermediate.

1. Wash the Amino-Adembeads with Amino 2 Activation Buffer 1X as described below (final concentration 1%)
2. Proceed to 1/10 dilution with Amino 2 Activation Buffer 1X and add 50µl of EGDE (technical grade 100 %) or 100µl of EGDE (technical grade 50%) per mg of beads.
3. Incubate for 2h at 20°C under shaking.
4. Wash the beads with Amino 2 Activation Buffer 1X twice to eliminate the excess of EGDE.
5. Add 10-50µg of antibodies per mg beads. Vortex to mix properly.
6. Incubate for 2h at 20°C under shaking.
7. Wash the beads with the Storage Buffer twice and resuspend the beads at the desired concentration.

Note:
- Adding 0.1-0.5% Tween 20 in Amino Activation Buffers 1x can reduce aggregation phenomena.
- Residual Aggregation can be eliminated by sonication at the end of the coupling procedure.

ADDITIONAL MATERIAL REQUIRED

- Magnetic device
- Rotation device
- Test tubes
- Related products :
  - Amino 1 Activation Buffer (# 10102)
  - Amino 2 Activation Buffer (# 10103 / # 10104)
  - Storage Buffer (# 10201)
  - Magnetic Devices
    - Adem-Mag SV, 1.5 ml (# 20101)
    - Adem-Mag MV, 15 ml (# 20102)
    - Adem-Mag HV, 50 ml (# 20103)
  - EGDE (Ethylene Glycol Diglycidyl Ether)

STORAGE/STABILITY

When stored in unopened vials at 2-8°C, Amino-Adembeads are stable until expiration date printed on the label. The Amino-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.

Sodium azide is toxic if ingested. Avoid pipetting by mouth. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. When disposing through plumbing drains, flush with large volumes of water to prevent azide buildup.

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 any material or manufacturing defect. Claims for merchandise damaged in transit must be submitted to the carrier.