AccuNanoBead™ Thiol Magnetic NanoBeads NanoBeads

[Cat. No.] TA-1019-1

Introduction

Bioneer AccuNanoBead Thiol Magnetic NanoBeads are uniform, silica-based paramagnetic beads coated with high density thiol functional groups on the surface. The beads are used to reversible couple thiol-containing ligands. Magnetic Beads are most suitable for conjugation of proteins.

Features & Benefits

- Recommended coupling conditions: pH 4–8, 4°C to 25°C, 3–16 hr.
- Specific isolation of cysteine proteins/peptides.
- Stable covalent bond with minimal ligand leakage.
- Produces reusable immunoaffinity matrices.
- Low nonspecific binding.
- Applications:
  Cell sorting, Immunoprecipitation, Purification for Antibodies, Proteins/Peptides, DNA/RNA

Components

Components	Amount
AccuNanoBead™ Thiol Magnetic NanoBeads	0.5g/25ml In 20% Ethanol

*** Note:** For research use only. Not for use in diagnostic or therapeutic procedures.

Materials to be Prepared by User

Magnetic Separator	
Coupling Buffer	0.1 M sodium phosphate, pH 7.0 , 5mM EDTA
L-Cysteine•HCl	
TCEP(tris(2-carboxyethyl)phosphine)	
Washing buffer	1 M NaCl, 0.05% NaN3

*** Note:** Buffer could be changed depending on user's needs.

Specifications

AccuNanoBead™ Thiol Magnetic NanoBeads	
Composition	Thiol magnetic nanobeads
Binding capacity	≥400 nmol/g of beads
Size	Average 400 nm
Concentration	0.5g(Solid)

Storage

Store at room temperature.
This product can be stable for 3 years at room temperature (25°C).

Expired date

Indicated on the label.

Precautions

- Do not vigorously vortex AccuNanoBead™ Thiol Magnetic NanoBeads.
- An exact protocol may need to be optimized by the user.

Online Resources

Korean English

Visit our **product page** for additional information and protocols

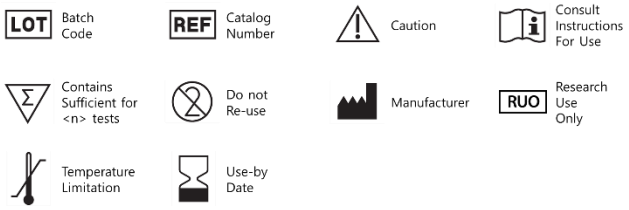
Ordering Information

Description	Cat. No.
AccuNanoBead™ Thiol Magnetic NanoBeads	TA-1019-1

Notice

BIONEER corporation reserves the right to make corrections, modifications, improvements and other changes to its products, services, specifications or product descriptions at any time without notice.

Explanation of Symbols



Experimental Procedures (The protocols are scalable and can be optimized)

Steps		Procedure Details
1	Coupling	1. Add the protein to the coupling buffer. 2. Put the magnetic beads in the tube, add coupling buffer and disperse the beads using an ultrasonicator. 3. Add the protein sample prepared in step 1 to the tube with dispersed magnetic beads. 4. Rotate the dispersed bead-proteins in the tube on a rotator for 30 minutes at room temperature. 5. Remove the supernatant by holding the magnet close to the tube, and reload the buffer. 6. Wash steps 4 through 5 with coupling buffer 3 times. 7. Disperse the beads in 1ml coupling buffer containing L-cysteine•HCl, and rotate on a rotator for 30 minutes at room temperature. 8. Place the magnet close to the tube to remove the supernatant and wash 4 times with washing buffer. 9. Disperse beads in PBS buffer containing 0.05% sodium azide and store at 4°C.