[Cat. No.] TA-1012-1

Introduction

Bioneer AccuNanoBead Carboxyl Magnetic NanoBeads are uniform, silica-based paramagnetic beads coated with high density of carboxyl functional groups on the surface. The beads are used to covalently conjugate primary amine- containing ligands via a stable amide bond Carboxyl Magnetic NanoBeads are most suitable for conjugation of larger protein.

Features & Benefits

- Covalently couples with high efficiency
- Stable covalent bond with low levels of ligand leakage
- Produces reusable immunoaffinity matrices
- Low nonspecific binding
- Immobilize protein or peptide
- Application: Purification for Antibody Protein/Peptide, DNA/RNA; Cell sorting, Immunoprecipitation

Components

Components	Amount
AccuNanoBead™ Carboxyl Magnetic NanoBeads	0.5 g

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

Materials to be Prepared by User

Magnetic Separator	
Coupling Buffer	10 mM potassium phosphate, 0.15 M NaCl, pH 5.5
Coupling Agent	EDC [1-ethyl-3(3-dimethyaminopropyl) carbodiimide],
Coupling agent solution	Freshly prepared coupling agent solution by dissolving 57mg EDC in 100 ml ddH2O. Use immediately after preparation because this solution is unstable.
Wash/Storage Buffer	10 mM Tris base, 0.15 M NaCl, 0.1% (w/v) BSA, 1mM EDTA, 0.1% sodium azide, pH 7.5. Blocking buffer: 1 M Glycine, pH 8.0

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

Specifications

AccuNanoBead™ Carboxyl Magnetic NanoBeads	
Composition	Carboxyl Magnetic NanoBeads
Binding capacity	DMT Loading: ≥ 15 umol/g of beads
Size	Average 400 nm
Concentration	0.5 g(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*™ Carboxyl 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

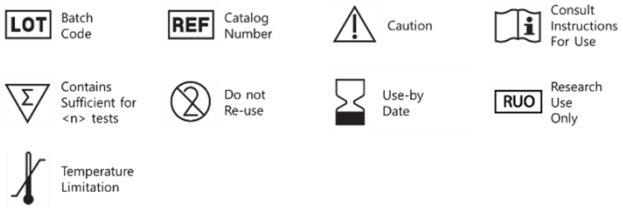
Ordering Information

Description	Cat. No.
AccuNanoBead™ Carboxyl Magnetic NanoBeads	TA-1012-1

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 of Protein**	1 Disperse the dried beads in the coupling buffer. 2 Prepare protein solution (0.5-1mg/ml concentration) and mix well with the dispersed beads. 3 Add the coupling agent (EDC) solution to the tube and shake to mix well. 4 Rotate with a low-speed rotator and react for 24 hours at room temperature. 5 When the reaction is complete, remove the tube supernatant by placing the tube close to a magnet. 6 Wash beads three times with wash/storage buffer. 7 Store dispersed beads in wash/storage buffer at 4ºC.