

MagBind Particles (monodisperse spherical carboxyl magnetic beads)

Description

Magnetic bead nucleic acid purification technology uses nano or micron superparamagnetic material as the matrix, generally black ferric oxide or yellowish brown ferric oxide as the magnetic material. The surface of bead is coated with appropriate functional groups, which can adsorb nucleic acid. Magnetic beads commonly used for nucleic acids, containing carboxyl groups, hydroxyl groups, or silicon groups. Magbind particles is a monodisperse spherical carboxyl magnetic bead prepared by sandwich method. The core is 0.6um polystyrene beads with uniform particle size, the middle layer is a magnetic response layer of nano-sized iron oxide, and the surface is a phenylethylene polymer rich in carboxyl. The product can be used for plasmid extraction, gel DNA recovery, product purification, genomic DNA and RNA extraction, and viral nucleic acid extraction.

Purification principle

Alcohol/PEG8000 mediated binding: in the solution containing alcohol (~ 40%) or PEG8000(>8%), DNA / RNA will be deposited and adsorbed to the surface of magbind particles, and impurities such as protein will not be adsorbed. After the biological sample is treated with digestive solution or lysate, DNA/RNA is released from cells, organelles and protein complexes (ribosomes and nucleosomes) into the reagent. After adding magbind particles and binding solution, DNA / RNA is adsorbed to the surface of magbind particles to form DNA magnetic bead complex. Under the action of the magnetic field, the magnetic beads are separated and collected, and the impurities such as protein are removed with the waste liquid. After two or three steps of further cleaning, the DNA magnetic bead complex is resuspended in sterilized water or te buffer, and the DNA falls off from the surface of the magnetic beads, so as to achieve the purpose of purification.

Ordering Information

CAT.No.	Product Name	Package
C14130	MagBind Particles	10 ml
C14131		100 ml

Specifications

Concentration	10mg/ml
Appearance	Suspension of yellowish brown particles
Surface functional group	Carboxyl, COOH
Dispersibility	Monodisperse, spherical
Particle Size	0.8~1um
Preservation Conditions	Room Temperature, valid for up to 2 years. It is recommended to store in 2-8oC to prevent microbial growth.
Magnetic Response Speed	120 seconds
Settling velocity	>2 hours
High salt Mediated Binding	No adsorption
Alcohol Mediated Binding	1M NaClO ₄ /ethanol (50%), DNA/RNA recovery up to 90%
PEG8000 Mediated Binding	The recovery of DNA/RNA was up to 90%
DNase/RNase	Not detected
DNA residue	Not detected
Recommended application	Plasmid extraction, gel DNA recovery, genomic DNA extraction and RNA extraction.