Silica Mag Beads OH (1-4 μm)

Description

TargetMol silica magnetic beads are specially designed for nucleic acid extraction and purification. The bead surface is composed of high-purity silica material enriched with silanol groups (hydroxyl groups) or carboxyl groups, which enable efficient and specific binding to nucleic acid molecules through hydrophobic interactions, hydrogen bonding, and electrostatic interactions under high-salt and low-pH conditions, while exhibiting minimal adsorption to impurities such as proteins. This allows rapid separation and purification of nucleic acids from complex biological samples.

The product features a simple workflow and high operational safety, and is suitable for both manual operation and automated platforms, particularly for high-throughput nucleic acid extraction applications.

Product Information

Product Name	Silica Mag Beads OH (500 nm) (C0221)	Silica Mag Beads OH Super (500 nm) (C0222)	Silica Mag Beads OH Ultra (500 nm) (C0223)	Silica Mag Beads OH (1-4 μm) (C0224)
Average Particle Size	500 nm (monodisperse)*	500 nm	500 nm	1–4 μm (amorphous)
Magnetic Core	Fe_3O_4			
Magnetic Shell	Silica			
Magnetic Type	Superparamagnetic			
Saturation Magnetization	53.51 emu/g	/	~56 emu/g	40.37 emu/g
Specific Surface Area	25.36 m^2/g	/	/	9.06 m^2/g
Bead Concentration	50 mg/mL			
Storage Buffer	20% ethanol	20% ethanol	Sterile water, 0.05% (V/V) Proclin-300	Sodium chloride solution

* Hydrated average particle size determined by Malvern Nano.

Product Features

1. Excellent superparamagnetic properties and rapid magnetic responsiveness help reduce operation time.
2. Good dispersion and resuspension performance improve nucleic acid binding efficiency and recovery.
3. Stable physicochemical properties support high reproducibility and reliability of experimental results.

Product Applications

- Purification and recovery of PCR products
- Extraction and purification of plasmid DNA
- Isolation and extraction of viral nucleic acids
- Extraction of genomic DNA from various sample types, including blood, tissues, plants, and microorganisms
- Magnetic bead-based protein purification

Storage Conditions

Store at 4°C for 2 years.

Precautions

1. Avoid freezing, drying, or high-speed centrifugation of the magnetic beads.
2. To minimize bead loss, the magnetic separation time should not be less than 1 min each time.
3. Before removing beads from the storage container, mix thoroughly to ensure uniform suspension. Avoid bubble formation during operation.
4. High-quality pipette tips and reaction tubes are recommended to minimize loss caused by bead and solution adhesion.
5. This product is intended for professional scientific research use only. It must not be used for clinical diagnosis or treatment, food or drug applications, and must not be stored in residential environments.
6. For your safety and health, please wear a lab coat and disposable gloves during operation.

TargetMol US

sales@targetmol.com (781) 999-4286 www.targetmol.com

34 Washington Street, Suite 220, Wellesley Hills, MA 02481

TargetMol EU

sales@targetmol.com +43(0)676/786025 www.targetmol.com

Hafenstraße 47-51，4020 Linz，Austria