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A Geno Technology, Inc. (USA) brand name

Silica Magnetic Beads

(Cat. # 786-915, 786-916, 786-917)

INTRODUCTION

G-Biosciences Silica Magnetic Beads are Fe_3O_4 magnetic beads coated with a silicon dioxide (SiO_2) layer. Since silica is able to bind to the nucleic acids, G-Biosciences Silica Magnetic Beads serve as a simple and efficient tool for plasmid DNA purification for transfection or sequencing applications, genomic DNA purification for research or clinical applications, RNA purification for qPCR analysis, or PCR product clean-up for downstream analysis.

ITEMS SUPPLIED

Cat. #	Description	Size
786-915	Silica Magnetic Beads	5ml
786-916	Silica Magnetic Beads	25ml
786-917	Silica Magnetic Beads	100ml

STORAGE CONDITIONS

The beads are shipped at ambient temperature. Upon arrival, store the beads at 4°C. If stored and handled correctly the beads have a 1 year shelf life.

SPECIFICATIONS

Fe_3O_4 beads coated with silicon dioxide (SiO_2) of an average 2.5-4.5µm in diameter for the binding of nucleic acids. Binding capacity is 4mg DNA/ml beads. G-Biosciences Silica Magnetic Beads are supplied in phosphate buffered saline, pH 7.4 with 0.09% Sodium Azide and 0.02% Tween-20.

PRECAUTIONS

- Do not freeze the magnetic beads
- Do not store near magnetic sources

PROTOCOL

Additional Items Required

- Binding Buffer: 4M guanidine thiocyanate, 40mM Tris, 17.6mM EDTA, pH 8.0
- Wash Buffer: 10mM Tris-HCl, 1mM EDTA, 70% ethanol, pH8.0
- Elution Buffer: TE Buffer (10mM Tris-HCl, 1mM EDTA, pH8.0)
- Magnetic Stand or magnet

Preparation of Silica Magnetic Beads

1. Resuspend G-Biosciences Silica Magnetic Beads thoroughly by pipetting or vortex the vial.
2. Transfer adequate amount of beads into a clean tube.
3. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
4. Discard the supernatant by aspiration with a pipette.
5. Remove the tube from magnetic stand.
6. Add 100 µl Elution Buffer (or ddH_2O) and resuspend the beads by pipetting or vortex.
7. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
8. Discard the supernatant, and then remove the tube from the magnetic stand.
9. Repeat steps 6-8 twice.

Purification of Nucleic Acid

1. Mix 10µl sample and 90µl Binding Buffer with magnetic beads thoroughly by pipetting.
2. Incubate with tilt rotation for 2 minutes at room temperature.
3. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
4. Discard (or collect) the supernatant as unbound substances by aspiration with a pipette, and then remove the tube from the magnetic stand.
5. Add 100µl Wash Buffer and resuspend the beads by pipetting.
6. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
7. Discard (or collect) the supernatant as unbound substances, and then remove the tube from the magnetic stand.
8. Repeat steps 5-7 twice.
9. Air-dry for 5-20 min.
10. Add 10-100µl Elution Buffer (or ddH_2O) and resuspend the beads complex by vortex or shaking.
11. Incubate with tilt rotation for 3 minutes at room temperature.
12. Place the tube on the magnetic stand for 30-60 seconds and collect the supernatant to a clean tube.

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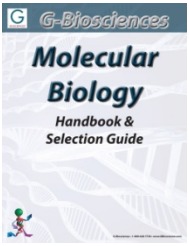

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