

### Cat. No. MF-SIL-5010 / MF-SIL-5024

# **Qbeads-Silica**

## Product description

Qbeads-Silica is Fe<sub>3</sub>O<sub>4</sub> magnetic particles coated with a silicon dioxide (SiO<sub>2</sub>) layer. Since silica is able to bind to the nucleic acids, Qbeads-Silica serves as 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.

## **Product Information**

Specifications	MF-SIL-5010	MF-SIL-5024
Application*	High magnetic & fast sedimentation	High adsorption & easy suspension**
Characteristic of 1 mL	Magnetic adhesion completed less than 30 sec after mixing.	Suspension more than 2 min after mixing.
Mean Diameter of Particles	$4 \sim 6 \ \mu m$	$2.5 \sim 4.5 \ \mu m$
<b>Core Material</b>	Iron Oxide (Fe <sub>3</sub> O <sub>4</sub> )	
Layer Coating	Silica (SiO <sub>2</sub> )	
Concentration	50 mg/mL	
Capacity	> 4 mg DNA/mL	
Solution	ddH2O	

- \* The application of Qbeads-Silica is relative characteristic of MagQu Qbeads series that is all sedimentation particles. Difference brand will be different.
- **\*\* MF-SIL-5024** : The appearance of supernatant may black or dark brown color that is normal at a standstill due to high suspension of product characteristic, please feel free to use.

# Additional material required

- Binding Buffer, pH 8.0
   4 M Guanidinium thiocyanate
   40 mM Tris
   17.6 mM EDTA
- Wash Buffer, pH 8.0
   10 mM Tris-HCl buffer
   1 mM EDTA
   70 % EtOH

• Elution Buffer, pH 8.0 10 mM Tris-HCl 1 mM EDTA

### Protocol

#### Preparation of the beads for use

- 1. Resuspend the Qbeads-Silica thoroughly by pipetting or vortex the vial.
- 2. Transfer adequate amount of Qbeads-Silica 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  $\mu$ L Elution Buffer (or ddH<sub>2</sub>O) 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.
- 10. Ready for purification of nucleic acid.

#### Purification of nucleic acid

- 11. Mix 10 µL sample and 90 µL Binding Buffer with magnetic beads thoroughly by pipetting.
- 12. Incubate with tilt rotation for 2 minutes at room temperature.
- 13. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 14. Discard (or collect) the supernatant as unbound substances by aspiration with a pipette, and then remove the tube from the magnetic stand.
- 15. Add 100  $\mu$ L Wash Buffer and resuspend the beads by pipetting.
- 16. Place the tube on the magnetic stand for 30-60 seconds to immobilize the beads at tube wall.
- 17. Discard (or collect) the supernatant as unbound substances, and then remove the tube from the magnetic stand.

- 18. Repeat steps 15-17 twice.
- 19. Air-dry with shaking  $5 \sim 20$  min.
- 20. Proceed to elution of nucleic acid.

### Elution of nucleic acid

- 21. Add 10-100  $\mu$ L Elution Buffer (or ddH<sub>2</sub>O) and resuspend the beads complex by vortex or shaking.
- 22. Incubate with tilt rotation for 3 minutes at room temperature.
- 23. Place the tube on the magnetic stand for 30-60 seconds and collect the supernatant to a clean tube.

### Storage Conditions & Stability

Storage reagent at room temperature. The recommended storage at 2-8 °C if the bottle is opened. Please refer to the detail expiration date on the product label.

### **Contact Information**

Please contact us when you have any question or comments via e-mail: <u>info@magqu.com</u>, or phone: +886-2-8667-1897.

### Remarkable Notes

- 1. Please keep the reagent away from magnets during storage.
- 2. Do not freeze.
- 3. For professional use only.



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