MEBEP TECH(HK) Co., Limited
Email: sales@mebep.com Website: www.mebep.com
Tel: +86-755-86134126 WhatsApp/Facebook/Twitter: +86-189-22896756

Magnetic Bead

Product Number: MB400H

Shipping and Storage

2℃ -25℃, do not freeze, valid for 3 years.

Description

MB400H is a multi dispersed magnetic microsphere composed of a magnetic core and a silicon oxide shell, which has the advantages of fast magnetic response speed and good hydrophilicity. The shell layer of silicon oxide brings a large amount of silicon hydroxyl groups to magnetic microspheres, making them highly dispersed in water. This product has excellent capture ability and elution efficiency for nucleic acids, and is suitable for extracting viral nucleic acids and CIDNA from samples such as blood, serum, plasma, and swabs. It can meet the requirements of automated instruments and is an ideal choice for biological sample purification.

Product information

1. Particle size (SEM): ~200nm
2. Material: $SiO_2Fe_3O_4$
3. Surface: Silicon hydroxyl group
4. Preservation solution: Deionized pure water
5. Additive: Trace surfactant, 0.1% Rroclin300

Protocol

1. Manual extraction
   - 1.1. Take a 2m centrifuge tube, open the tube cover, add 500mL of lysis buffer and 200 μ L of sample in sequence, cover the tube cover, vortex for 30s, and incubate at 70 ° C for 2 minutes;
   - 1.2. Add 30uL of magnetic beads (mix well before use), let it stand at room temperature for 3 minutes, transfer it to a magnetic rack, magnetize for 30 seconds, and remove the supernatant;
   - 1.3. Add 500 μ L of washing solution 1, vortex for 30 seconds, transfer to a magnetic rack, magnetize for 30 seconds, and remove the supernatant;
   - 1.4. Add 500L of washing solution 2, vortex for 30 seconds, transfer to a magnetic rack, magnetize for 30 seconds, and remove the supernatant; Immediately leave again, remove residual liquid and open the lid to dry for 3 minutes;
   - 1.5. Add 70uL of eluent, vortex and mix for 30 seconds, at 70C, 1600rpm, and incubate for 3 minutes;
   - 1.6. Take out the centrifuge tube and place it on a magnetic rack, magnetize for 1 minute, and take the supernatant for downstream detection.

   Note: The magnetic beads need to be mixed evenly before use. If there are magnetic beads stuck to the bottle cap or tube wall before magnetization, they need to be centrifuged instantly.
2. On machine extraction
   - 2.1. Take the 96 well plate that is compatible with the nucleic acid extractor, mark it properly, and add samples according to the parameters shown in Table 1.

Hole position	Reagent
1/7	Add 500μL of lysis binding solution and 200μL of sample in sequence
2/8	500μL magnetic bead diluent, 30μL magnetic bead stock solution
3/9	500μL detergent solution
6/12	70mL elution

Table 1 Sampling sequence of 96 well plate

   - 2.2. Set the computer program according to the parameters shown in Table 2.

Experimental procedure	Hole position	waiting time	mixing time	Magnetic attraction time	Mixed Mode	Heating temperature
Step 1	1	\	1min	\	4	65℃
Step 2	2	\	10s	40s	4	\
Step 3	1	\	4min	60s	4	37℃
Step 4	3	1min	50s	40s	4	\
Step 5	6	\	3min	90s	4	75℃
Step 6	2	\	20s	\	4	\

Table 2: Computer Program for Nucleic Acid Extraction Instrument

2.3. After the automation program is completed, the eluent can be immediately used for downstream detection; If not used immediately, it is recommended to seal the plate or remove the eluent and store it in a clean centrifuge tube at -20℃.

Note

1. Do not freeze, add a small amount of ice cubes above 25℃ to maintain a suitable temperature, and do not directly contact ice cubes with magnetic beads;
2. Before using magnetic beads, they should be thoroughly shaken and resuspended evenly, and bubbles should be avoided during the removal process;
3. This product is only used for scientific research.