

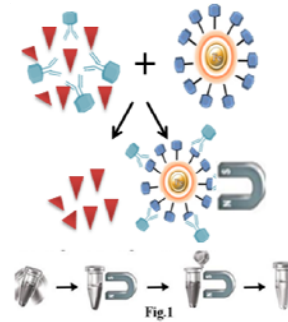
BcMag™ Quick Endotoxin Removing Magnetic particle

Introduction

BcMag™ Quick Endotoxin Removing Magnetic Bparticles are specifically designed for quick and efficient one-step removing endotoxin (pyrogens produced by gram-negative bacteria) from contaminated biological samples with polymyxin B immobilized on our unique superparamagnetic Particles.

Feature and Benefits

- **Quick, easy and one-step high-throughput procedures** (Fig.1); Simply add magnetic Particles to the sample, mix and magnetically remove the endotoxin-bound magnetic Particles. Eliminates columns or filters, or laborious repeat pipetting or centrifugation
- Protein/DNA recovery can be ~95%
- Broader work pH (5-9)
- High binding capacity: 4500-6000 E.U./ml
- Particles can be reused at least 5 times.



Product Specificities	
Particle Size	~ 1-10 µm
Magnetization	~40 EMU/g
Type of Magnetization	Superparamagnetic
Effective Density	2.5 g/ml
Concentration	50 mg/ml (20% Ethanol)
Binding Capacity	≥ 9,995 EU (endotoxin units) / ml
Storage	Store at 4°C upon receipt

Protocol

Note: Equilibrate all reagents and sample to room temperature because temperature, pH, ionic strength affect performance of the Particles.

Materials Required

- Regeneration Buffer: 1% Sodium deoxycholate
- Endotoxin-free d₂H₂O
- **Magnetic Separator** (for manual operation): Based on sample volume, user can choose one of the following magnetic Separators from Bioclone Inc: BcMag separator-2 for holding two individual 1.5 ml centrifuge tubes (Cat.# MS-01); BcMag separator-6 for holding six individual 1.5 ml centrifuge tubes (Cat. # MS-02); BcMag separator-24 for holding twenty-four individual 1.5-2.0 ml centrifuge tubes (Cat. # MS-03); BcMag separator-50 for holding one 50 ml centrifuge tube, one 15 ml centrifuge tube, and four individual 1.5 ml centrifuge tubes (Cat.# MS-04); BcMag™ separator-96 for holding a 96 ELISA plate (Cat.# MS-05); BioMag® Flask Separator for 500 ml (Polysciences Inc, Cat.# 86001-10).

A. Procedure

Note:

- Equilibrate all reagents and sample to room temperature because temperature, pH, ionic strength affect performance of the Particles.
- To minimize nonspecific binding, 1. Adjust all buffers to pH 7-8 and salt concentration 0.1-0.5 M NaCl (final concentration), although the Particles can bind to LPS at pH 5-9.

- *Use only endotoxin-free solutions to prevent introducing any endotoxin into the sample.*
1. Shake the bottle to completely resuspend the magnetic particles.
 2. Transfer desired amount of magnetic particles to a centrifuge tube. Place the tube on the magnetic separator for 1-3 minutes until the supernatant becomes clear. Remove the supernatant while the tube remains on the separator.
 3. Remove the tube and wash the particles thoroughly with 5 particle volumes of **Endotoxin-free d₂H₂O** for three times as described in step 2.
 4. Resuspend the Particles with 10 particle volumes of **Regeneration Buffer** and incubate at room temperature for 15 minutes with continuous rotation.
 5. Wash the particles with 5 particle volumes of a suitable **pyrogen-free buffer** or **Endotoxin-free d₂H₂O** three times as described as step 2.
 6. Add appropriate amount of protein or DNA solution to the Particles and incubate at room temperature for 15 minutes with continuous rotation.
 7. Place the tube on the magnetic separator for 1-3 minutes until the supernatant becomes clear. Remove the supernatant to an endotoxin-free tube while the tube remains on the separator.

B. Particles Reuse

1. Regenerate Particles by washing the Particles with 5 particle volumes of **Regeneration Buffer** three times to remove any bound endotoxin as described as A2.
2. Wash the particles with 5 particle volumes of **Endotoxin-free d₂H₂O** three times as described as step A2.
3. Store columns in 20-25% ethanol at 2-8°C.

NOTES:

- *Regenerated particles may be used at least 5 times without loss of activity.*
- *The Particles must be regenerated before each use, including first time use*