Chitin (CBD-tag Affinity) Magnetic Beads
Catalog No. MBPP-06001, MBPP-06002, MBPP-06003

【Introduction】
Chitin Magnetic Beads are nano-superparamagnetic beads covalently coupled with chitin. With a fast magnetic response rate, high protein binding capacity and low non-specific binding, Chitin Magnetic Beads provide a rapid and efficient method to purify CBD(chitin-binding domain)-fusion proteins from cell culture supernatant. The beads are simply added to cell culture supernatant and CBD-fusion proteins will bind to the beads. After washing unbound proteins off, the CBD-fusion proteins can be eluted from the magnetic beads or the protein-bound magnetic beads can be directly used in downstream experiments (e.g. capturing target proteins, which bind to the immobilized CBD-fusion proteins, from crude cell lysates). The process can be completed manually or fully automated for high throughput applications.

【Product Specifications】
- **Diameter**: 500nm
- **pH stability**: pH 3-13
- **30min sedimentation rate**: <0.1%
- **Magnetic response rate**: >30emu/g
- **Solvent**: 20% ethanol
- **Binding capacity**: 60-100µg CBD-fusion proteins per mg magnetic beads

【Product Content】

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Conc. (mg/ml)</th>
<th>Volume (ml)</th>
<th>Amount of Beads (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBPP-06001</td>
<td>50</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>MBPP-06002</td>
<td>50</td>
<td>4</td>
<td>200</td>
</tr>
<tr>
<td>MBPP-06003</td>
<td>50</td>
<td>20</td>
<td>1000</td>
</tr>
</tbody>
</table>
【Purification Protocol】
The following protocol provides general guidelines for purification of CBP-fusion proteins using Chitin Magnetic Beads and may be modified by the user for specific applications. The protocol is scalable.

A. Additional material recommended
1. Binding/Washing Buffer: 20mM Tris-HCl, 0.5M NaCl, 1mM EDTA, 0.1% Tween-20, pH 8.0
2. A magnetic stand or a 96-well magnetic bead automation processor

B. Isolation of CBP-fusion proteins
1. Gently mix the magnetic beads thoroughly before use by repeated inversion.
2. Place 20µl of magnetic beads (1mg) into a 1.5ml sterile microcentrifuge tube.
3. Place the tube on a magnetic stand, collect the beads and discard the supernatant.
4. Wash the beads twice with Binding/Washing Buffer (500µl each time) by magnetic separation. Collect the beads and discard the supernatant.
5. Add 200-500µl of cell culture supernatant to the beads, mix thoroughly and incubate for 1.0hr at 4°C on a rotator.
6. Collect the beads with a magnet and save the supernatant for analysis if desired.
7. Wash the protein-coupled beads three times with Binding/Washing Buffer (500µl each time) by magnetic separation.
8. The CBD-fusion proteins can be eluted from the magnetic beads (e.g. boiling in 30µl of SDS-PAGE reducing sample buffer for 5min).
9. Or the protein-bound magnetic beads can be directly used in downstream experiments (e.g. capturing target proteins, which bind to the immobilized CBD-fusion proteins, from crude cell lysates).

【Storage】
Stored at 2-8°C, 2 years.

【Manufacturer】
Avanbio, ABA-06001, ABA-06002, ABA-06003