ProMag® Bind-IT™ Pre-activated Microspheres

Bangs Laboratories, Inc.
BEADS ABOVE THE REST

Product Data Sheet 735

DESCRIPTION

ProMag® Bind-IT™ are polymer-based magnetic microspheres with a pre-activated surface that allows ready binding of antibody without sacrificing stability. They are available in a diameter of 3µm.

Our revolutionary Bind-IT™ chemistry features multivalent binding via coordination complexes. Though the strength of individual interactions is limited, the multiplicity of attachments results in secure immobilization. The Bind-IT™ surface offers stable coating, but without damage to the tertiary structure of the protein as can sometimes occur with covalent coatings. The end result is a highly active and stable surface that offers significant improvements in the sensitivity and dynamic range of immunoassays.

MATERIAL

Material Supplied

ProMag® Bind-IT™ pre-activated microspheres (2.5% solids, 25 mg/mL)

Material Required

Antibody
Coupling Buffer (50mM MES, pH 5.2; 0.01% Tween® 20 and 0.05% ProClin® 300 may be included if desired)
Storage Solution (150mM Normal Saline + 0.025% ProClin® 300)
1.5mL polypropylene microcentrifuge tubes (low-binding)
Magnetic separator for 1.5mL microcentrifuge tubes
Pipettor, range 10-100µL
Tube rotator
Vortex mixer

Procedure

Researchers are advised to optimize the use of particles in any application.

1. Dispense 100µL microsphere suspension (2.5mg microspheres) to a 1.5mL microcentrifuge tube.
2. Place tube on magnetic separator for 30-60 seconds to allow complete separation of microspheres.
3. Taking care not to disturb the microsphere pellet, remove supernatant using a 100µL pipettor.
4. Remove the tube the magnetic separator, and add 100µL Coupling Buffer. Pulse vortex to fully re-suspend the pellet.
5. Repeat the wash 2 times using magnetic separation to pellet the microspheres. After the final wash, remove the supernatant using a 100µL pipettor.
6. Prepare 100µL antibody solution at 1.0 mg/mL in Coupling Buffer.
7. Add antibody solution to microsphere pellet from Step 5, and pulse vortex to mix.
8. Incubate the microspheres and antibody for 60 minutes at room temperature using end-over-end mixing on a rotator.
9. Place tube on magnetic separator for 30-60 seconds to allow complete separation of microspheres.
10. Taking care not to disturb the microsphere pellet, remove supernatant using a 100µL pipettor.
11. Remove the tube from the magnetic separator and re-suspend the protein-coated microspheres in 100µL Storage Solution.
12. Vortex for 20 seconds, then place the tube on the magnetic separator for 30-60 seconds.
13. Taking care not to disturb the microsphere pellet, remove and discard the solution using a 100µL pipettor.
14. Repeat the wash procedure, i.e. Steps 11-13.
15. Remove the tube from the magnetic separator, and re-suspend the microspheres in 100µL Storage Solution or other suitable storage buffer.
16. Store antibody-coated spheres at 2-8˚C. Do not freeze.

Notes

1. ProMag® Bind-IT™ microspheres should be stored in their original solution until coating.
2. The magnetic microspheres are dark brown and the suspending solution has a greenish appearance due to the presence of stabilizer.
3. Pre-made coupling buffers compatible with ProMag® Bind-IT™ particles include Bangs Bead Coupling Buffer, pH 4.5 (Catalog Code BUFF1) and Bangs Bead Coupling Buffer, pH 6.0 (Catalog Code BUFF2).
4. Once coated, microspheres may be used in standard biologic buffers, though phosphate buffer should be avoided.
5. Additives such as chelators should be avoided.
6. If required, a non-ionic surfactant such as Tween® 20 is suggested.
7. Microspheres should be stored at 2-8˚C. Do not freeze.

TRADEMARKS AND REGISTERED TRADEMARKS

Bind-IT™ is a trademark of Bangs Laboratories, Inc.
ProMag® is a registered trademark of Polysciences, Inc.
ProClin® is a registered trademark of Rohm & Haas Company.
Tween® is a registered trademark of ICI Americas, Inc.

STORAGE AND STABILITY

Store at 2-8˚C. Freezing of particles may result in irreversible aggregation and loss of binding activity.

This product is for research use only and is not intended for use in humans or for *in vitro* diagnostic use.

ORDERING INFORMATION

Cat. Code	Description	Sizes
PMB3N	ProMag® 3 Series • Bind-IT™	2mL, 5mL or 10mL

RELATED PRODUCTS

Cat. Code	Description	Sizes
BUFF1	Bangs Bead Coupling Buffer, pH 4.5	250mL, 500mL, 1000mL, or 2000mL
BUFF2	Bangs Bead Coupling Buffer, pH 6.0	250mL, 500mL, 1000mL, or 2000mL

Order online anytime at **www.bangslabs.com**.