**BioMag® Dextran-coated Charcoal**

**Catalog Number: 84510 & 84555**

**DESCRIPTION**

BioMag® Dextran-coated Charcoal is a suspension of BioMag® particles covalently attached to NORIT® activated carbon and dextran. The suspension is supplied in distilled water with 0.1% sodium azide added as a preservative. A 1:5 dilution of this concentrate with phosphate buffered saline (PBS) is necessary before use. After shaking vigorously or vortexing, the diluted suspension is ready to use.

**CHARACTERISTICS**

- **Mean Diameter:** 1-10µm
- **Particle Concentration:** BM 555, 5mg/mL
  - BM 556, 50 mg/mL
- **Binding Capacity:** 750µl (3.75mg) of dilution per assay tube is sufficient to adsorb free unlabeled and tritium (³H)-labeled analyte in a typical competitive radioimmunoassay. Use only the diluted product in immunoassays.

**MATERIAL**

**Material Supplied**

- BM555 BioMag® Dextran-coated Charcoal: 100mL; or
- BM556 BioMag® Dextran-coated Charcoal Concentrate: 1000ml

**Material Required**

- Phosphate buffered saline (if needed for dilution)
- Magnetic separator
- Test tubes
- Scintillation vials

**PROCEDURE**

Researchers are advised to optimize the use of BioMag® in any application as procedures designed by other manufacturers may not be ideal.

*In preparation for use, the product should be shaken vigorously as well as before dilution.*

If working with the concentrated form (BM 556, 50mg/mL), a 1:5 dilution of this concentrate with phosphate buffered saline (PBS) is necessary before use. Add 4 parts PBS to 1 part concentrate.

BioMag® Dextran-coated Charcoal (5mg/mL preparation) can be used in tritiated radioimmunoassays to simplify charcoal-based separations. The dextran coating on the charcoal serves a gatekeeping function, permitting small molecules to pass between dextran molecules into the charcoal, while excluding larger complexes. Free unlabeled and radiolabeled analyte may thus be separated from the antibody-bound fraction.

Assay tubes are placed in a magnetic separation unit that pulls BioMag® Dextran-coated Charcoal Concentrate containing the free radiolabeled and unlabeled analyte to the bottom of the test tubes, leaving the antibody-bound analyte in the supernatant. The entire separation unit is inverted to simultaneously decant thirty test tubes into scintillation vials to quantify antibody-bound analyte. Please inquire for further information on the BioMag® separation device best suited to your application.

**REFERENCES**


**REGISTERED TRADEMARKS**

1. BioMag® is a registered trademark of Polysciences, Inc.
2. NORIT® is a registered trademark of Norit N.V.

**STORAGE AND SAFETY**

**Storage** Store at 4˚C. Freezing, drying, or centrifuging BioMag® may result in irreversible aggregation, with loss of surface area and binding capacity.

**Safety** This particle suspension contains sodium azide. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Upon disposal of material, flush with a large volume of water to prevent azide accumulation. Please consult the Safety Data Sheet for more information. *Observe your institution’s guidelines for safe handling and disposal of radiolabeled materials if using BioMag® Dextran-coated Charcoal in radiometric assays or isolations.*

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

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Description</th>
<th>Size</th>
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<td>84510</td>
<td>BioMag® Dextran-coated Charcoal</td>
<td>100ml</td>
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<tr>
<td>84555-1000</td>
<td>BioMag® Dextran-coated Charcoal Concentrate</td>
<td>1000ml</td>
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### TO ORDER

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<th>Phone Numbers</th>
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Order online anytime at [www.polysciences.com](http://www.polysciences.com)