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B E A D S ● A B O V E T H E R E S T™

Description

BioMag Dextran-coated Charcoal is a suspension of BioMag particles 1-10µm in size that are covalently attached to NORIT® activated carbon and dextran. The suspension is supplied in distilled water with 0.1% sodium azide added as a preservative. After shaking vigorously or vortexing, BioMag Dextran-coated Charcoal is ready to use.

Characteristics

Mean Diameter: ~10µm
Particle Concentration: 5 mg/mL
Binding Capacity: 750µL (3.75mg) of BioMag Dextran-coated Charcoal per assay tube is sufficient to adsorb free unlabeled and tritium (³H)-labeled analyte in a typical competitive radioimmunoassay.

Material

Material Supplied

- BioMag Dextran-coated Charcoal: 100mL

Material Required

- 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.

BioMag Dextran-coated Charcoal 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 containing the free radiolabeled and unlabeled analyte to the bottom or side of the test tubes, leaving the antibody-bound analyte in the supernatant. The entire separation unit is inverted to decant test tubes into scintillation vials to quantify antibody-bound analytes. However, should centrifugation be desirable, tubes may be centrifuged without altering results. Please inquire for further information on the BioMag separation device best suited to your application.

References

1. **Wu, Y-W., Y-H Tsai.** 2006. A rapid transglutaminase assay for high-throughput screening applications. *J Biomol Screening*, 11(7): 836-843.
2. **Poznanski, N., U.J. Poznanski.** 1969. Laboratory application of the dextran-coated-charcoal radioimmunoassay of insulin. *Clin Chem*, 15(9):908-918.

3. **Herbert, V., K-S Lau, C.W. Gottlieb, S.J. Bleicher.** 1965. Coated charcoal immunoassay of insulin. *J Clin Endocr*, 25:1375-1384.

Trademarks and Registered Trademarks

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

Storage and Stability

Store at 2-8°C. Freezing, drying, or centrifuging BioMag may result in irreversible aggregation and loss of binding activity. Centrifugation may be used only if it is the last step in a procedure such that resuspension of the BioMag is not required.

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 Material 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

Catalog Code	Description	Size
BM555	BioMag® Dextran-coated Charcoal	100mL

Related Product

Catalog Code	Description	Size
BM556	BioMag® Dextran-coated Charcoal Concentrate	1000mL

Order online anytime at www.bangslabs.com.