Glutathione Polyvinyl Toluene SPA Beads

Product Number: RPNQ0030 (750mg)

Warning

For research use only.
Not recommended or intended for diagnosis of disease in humans or animals.
Do not use internally or externally in humans or animals.

Storage

Glutathione-coated SPA bead, lyophilized, based on polyvinyltoluene (PVT) and containing scintillant. Reconstitute using 0.2 M borate buffer pH 8.5. Store at 2–8°C.

Expiration

Once Reconstituted, the beads are stable for up to 7 days when stored in the appropriate conditions.

Safety Warnings and Precautions

All chemicals should be considered as potentially hazardous. We therefore recommend that this product is handled only by those persons who have been trained in laboratory techniques and that it is used in accordance with the principles of good laboratory practice. Wear suitable protective clothing such as laboratory overalls, safety glasses and gloves. Care should be taken to avoid contact with skin or eyes. In the case of contact with skin or eyes wash immediately with water. See material safety data sheet(s) and/or safety statement(s) for specific advice.

CAUTION: For use with radioactive material.
This product is to be used with radioactive material. Please follow the manufacturer's instructions relating to the handling, use, storage, and disposal of such material.

DESCRIPTION

The glutathione PVT SPA Beads is a novel bead formulation designed to use the scintillation proximity assay (SPA*) principle for trapping and quantifying the binding of labeled glutathione-S-transferase (GST)-tagged proteins or their binding partners.

The system is based on a polyvinyltoluene bead containing scintillant. The outer surface of the bead has been modified by a coating of glutathione which enables the binding of GST or GST fusion proteins.

CRITICAL PARAMETERS

The following points are critical:

- Using [^{3}H] glutathione in a tracer it is estimated that a mean value of 5.3 µg of glutathione is bound per 1 mg of bead.
- All Studies have used [^{3}H] or [^{33}P] as the radiolabel.
- Suitable controls need to be set up. For example, if the assay type is for the trapping and quantifying of GST-protein/DNA or GST-protein/protein interactions, then the ideal control would be to omit the GST fusion protein.
- The assay should be configured so that a fixed amount of SPA bead is used. A second parameter should also remain fixed (either the amount of GST-fusion protein or binding partner) while the other is variable.
- When researchers are using highly colored samples, color quench correction may be necessary.

BEAD RECONSTITUTION

1. Prior to use, the SPA beads should be reconstituted using 0.2 M borate buffer to a concentration of ~150 mg/ml and mixed thoroughly to ensure dispersion. Keep the beads in this buffer at 2–8°C.
2. For one 96-well plate, remove 150 mg (1 ml) of SPA bead in storage buffer into a clean glass container. Add assay buffer (9 ml) to the bead suspension and gently vortex mix. This produces a working bead stock at 15 mg/ml. Store on ice and use within 5 hours. Do not store this working stock of bead in assay buffer for later use once this 5-hour period has expired.

   Please note that an excess volume of bead in assay buffer will be generated to allow for pipette variation.

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