Wheatgerm Agglutinin Coated PVT SPA Beads

Product Number: RPNQ0252 (100mg)

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

Wheatgerm agglutinin SPA beads are supplied as a lyophilized solid containing 10% sucrose by weight. This material should be stored, protected from light, at 2–8°C. Under the above conditions this material is expected to be stable for 6 months.

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.

Quality Control

Each batch of wheatgerm agglutinin SPA beads is tested for its relative binding capacity of [3H],N′,N″-triacetylchitotriose.

BEAD RECONSTITUTION

Before use the beads should be reconstituted in a buffer appropriate for the particular assay to be performed. The wheatgerm agglutinin SPA beads should be mixed to ensure a homogeneous suspension while pipetting. This may be done by either recapping and shaking the bottle at regular intervals or by gently stirring with a magnetic stirrer. Reconstituted beads can usually be stored at 2–8°C for up to seven days. DO NOT FREEZE.

PLEASE NOTE: The wheatgerm agglutinin SPA beads have been freeze-dried from a 1% sucrose solution. Antimicrobial agents are not included in this reagent. The user should therefore be aware that microbial contamination may occur when the reconstituted beads are stored for prolonged periods. If antimicrobial agents (eg sodium azide) are added on storage, then it remains the responsibility of the user to evaluate the effects of the added agent on the assay.

ASSAY CONDITIONS

Wheatgerm agglutinin SPA beads, when coupled to membrane bound receptors, are designed to be used in ligand binding assays. During assay incubation carbohydrate residues present in cell membranes bind to WGA on the SPA bead, effectively immobilizing the receptor-bearing membranes on to the SPA bead. The binding of radiolabelled ligands to such immobilized receptors brings the isotope into close proximity with the scintillant which is incorporated within the bead. This allows the emitted radiation (beta-particles for [3H] or Auger electrons for [125I]) to stimulate the scintillant to emit light. Any unbound radiolabelled ligand is not in close enough proximity to the scintillant to allow such energy transfer and hence no signal is generated. Light emitted by stimulated SPA beads can be detected by either conventional scintillation counters or multidetector instruments. It remains the responsibility of the user to optimize the amount of wheatgerm agglutinin bead and the incubation time required for each assay. To achieve optimal counts excess wheatgerm agglutinin SPA bead should be present in order to capture all of the receptors present in the assay tube. The amount of receptor preparation together with the radiolabelled ligand being used need to be optimized for each assay. In general, wheatgerm agglutinin SPA beads will give approximately 22–45% of the cpm expected from conventional liquid scintillation counting, but the SPA counts obtained will depend on the isotope used, the type of counter used and the absolute efficiency of the instrument.

Samples which are colored may require color quench correction.

RPNQ0252-R Rev01

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