Yttrium Oxide His Tag Imaging Beads

Product Number: RPNQ0276 (500mg)

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

Yttrium oxide his tag imaging beads are supplied as an aqueous suspension at a concentration of 100 mg/ml. This material should be stored protected from light 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.
Care should be taken to avoid contact with skin or eyes. In the case of contact with skin or eyes wash immediately with water. These beads are in the size range of 1–5 microns and as such constitute a potential inhalation hazard when dry.

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 yttrium oxide his tag imaging beads* is tested for its relative binding capacity of the peptide [3H]Tyr-His-His-His-His-His-His-Ala.

BEAD RECONSTITUTION

Before use, the beads should be diluted in a buffer appropriate for the particular assay to be performed. The beads should be thoroughly mixed to ensure a homogeneous suspension while pipetting. This may be done by continuous agitation of the bulk suspension with a magnetic stirrer. NB Magnetic stirrer bars should be coated with a chemically insert material and be free from any surface bound metals or metal salts.

Note: Magnetic stirrer bars should be coated with a chemically inert material and be free from any surface bound metals or metal salts.

Diluted beads can usually be stored at 2–8°C for up to seven days. DO NOT FREEZE.

PLEASE NOTE: Anti-microbial agents are not included in this reagent. The user should therefore be aware that microbial contamination may occur when the diluted beads are stored for prolonged periods. If anti-microbial agents (e.g. 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. Diluted beads can usually be stored at 2 8°C for up to seven days. DO NOT FREEZE.

ASSAY CONDITIONS

Yttrium oxide his tag imaging beads may be used in a direct assay format where bead is used to quantify the binding of a directly radiolabeled histidine tagged fusion protein, peptide, or oligopeptide. Alternatively, yttrium oxide his tag imaging beads may be used in an indirect assay format where bead is used to quantify the association of a radiolabeled binding partner to a histidine tagged fusion protein, peptide, or oligopeptide. The binding of radiolabeled ligands 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 radiolabeled 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 imaging beads can be detected by a ViewLux imager. Other isotopes, such as [^{35}S] and [^{33}P], may also be used in the ViewLuc imaging format. It remains the responsibility of the user to optimize the amount of bead required and the incubation time required for each assay. To achieve optimal light output, excess beads should be present in order to capture all of the activity present in the assay tube. If employing receptor preparations, such as that found in microsomal preparations, the amount of receptor preparation together with the radiolabeled ligand being used needs to be optimized for each assay.

RPNQ0276-R Rev01

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