

Streptavidin Coupled Yttrium Oxide Imaging Beads

Product Number: RPNQ0271 (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

Streptavidin coupled Yttrium Oxide imaging beads are supplied as a freeze-dried solid, containing 10% sucrose by weight. The 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

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. 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. These beads are in the size range 1-5 microns and as such constitute a potential inhalation hazard when dry.

Quality Control

Biotin binding capacity (as determined by binding of [3H] Biotin to bead) is always greater than 140 pmoles/mg bead. However, the binding capacity of [3H] Biotin is not necessarily indicative of the binding capacity of Biotin labelled substrates. The effective binding capacity of Biotin labelled substrates should be optimized experimentally by the user.

Bead Reconstitution

Before use, the beads should be reconstituted in a buffer appropriate for the particular assay to be performed. The beads should be thoroughly mixed to ensure an homogeneous suspension while pipetting. This may be done by

continuous agitation of the bulk suspension with a magnetic stirrer. The user is advised to avoid the use of high ionic strength buffers or buffers containing high levels of phosphate ions as these may promote aggregation of beads. It is recommended that suspensions of beads should be prepared in water or low ionic strength media for storage or dispensing then diluted with assay buffer immediately before use.

PLEASE NOTE: Anti-microbial 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 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. Reconstituted beads can usually be stored in water or low ionic strength media at 2-8°C for up to seven days. DO NOT FREEZE.

Assay Conditions

Streptavidin Yttrium Oxide coupled imaging beads are designed for use in assay systems incorporating a biotinylated target and can be used in either capture (signal increase) or cleavage (signal decrease) assay forms. The binding of radiolabeled biotinylated compounds to Streptavidin Yttrium Oxide imaging beads brings the isotope into close proximity with the europium 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 Leadseeker Imaging beads* can be detected by ViewLux Imager. Other isotopes, such as [33P] or [35S], may also be used in ViewLux 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.

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The logo for Revvity, featuring the word "revvity" in a lowercase, sans-serif font.