

# Product specification

## LEADseeker glutathione yttrium oxide beads

RPNQ 0278 (500mg) / RPNQ 0279 (50mg)

Please note that:

1. Whilst this product has been tested before despatch, it has not been validated in a full assay format and no responsibility for its performance can be accepted.
2. This product, including any accompanying literature, labels and packaging may not be in its final format.
3. The quality or standard of the kit and the accuracy of any data accompanying it cannot therefore be guaranteed.

### Safety warnings and precautions

**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.

Harmful by inhalation or if swallowed.

**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.

**Warning:** Contains yttrium oxide. See safety data sheet supplied.

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 safety data sheet 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

This batch of LEADseeker glutathione yttrium oxide beads has been tested in a functional assay using GST FKBP12 and its binding partner [<sup>3</sup>H]FK506, and gave a linear response up to 10nM protein/50µg bead.

### Expiry

The expiry date is stated on the package and will normally be at least 4 weeks from the date of despatch.

### Packaging and storage

LEADseeker glutathione yttrium oxide beads are supplied by Amersham Biosciences as a freeze-dried solid, containing 2.5% buffer salts by weight. The material should be stored protected from light at 2-8°C.

## 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, or are wrongly stored. If anti-microbial 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.

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

The binding of [ $^3\text{H}$ ]NSP-GST brings the isotope into close proximity with the europium scintillant which is incorporated within the bead. This allows the emitted radiation (beta-particles for [ $^3\text{H}$ ] or Auger electrons for [ $^{125}\text{I}$ ]) 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 LEADseeker imaging beads\* can be detected by the LEADseeker homogeneous imaging system. Other isotopes, such as [ $^{33}\text{P}$ ] or [ $^{35}\text{S}$ ], may also be used with these beads in LEADseeker 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.

## **Ordering information**

When ordering please use one of the following order codes:

**LEADseeker glutathione yttrium oxide beads, RPNQ0278 (500mg) or RPNQ 0279 (50mg).**

For further information, please contact your local Amersham Biosciences office.

LEADseeker Homogeneous Imaging System is covered by PCT Application Number W098/07022

\*Patent applied for

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