

Caution: For Laboratory Use. A product for research purposes only.

## Streptavidin Coupled Polystyrene Imaging Beads

Product Numbers: RPNQ0261 (500 mg)  
RPNQ0263 (50 mg)

### 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. 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 lab coat, 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.

### HANDLING

### PACKAGING AND STORAGE

Streptavidin PS imaging beads are supplied by as a lyophilized solid containing 10% sucrose by weight. This material should be stored protected from light, at 2–8°C.

### EXPIRATION

The expiration date is least  $\geq 4$  weeks from the date of dispatch.

### QUALITY CONTROL

Biotin binding capacity (as determined by binding of [<sup>3</sup>H] Biotin to bead) is always greater than 100 pmoles/mg bead. However, the binding capacity of [<sup>3</sup>H] 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 Streptavidin PS imaging beads should be reconstituted in a buffer appropriate for the particular assay to be performed. **The beads should be mixed to ensure a homogeneous suspension while pipetting.** This may be done by continuous agitation 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 Streptavidin PS imaging beads have been freeze-dried from a 1% sucrose solution. 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.

## ASSAY CONDITIONS

Streptavidin PS imaging beads are designed for use in assay systems incorporating a biotinylated target and can be used in either capture or cleavage assay formats. The binding of radiolabeled, biotinylated compounds to the Streptavidin PS imaging beads brings the isotope into proximity with the scintillant. This allows the emitted radiation (beta-particles for [<sup>3</sup>H] or Auger electrons for [<sup>125</sup>I]) 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 is detected using a ViewLux<sup>®</sup> imager or MicroBeta<sup>2</sup> in luminescence mode. Other isotopes such as [<sup>33</sup>P] and [<sup>35</sup>S] can also be used in imaging format. It remains the responsibility of the user to optimize the amount of reagent bead required and the incubation time required for each assay. To achieve optimal counts, excess bead should be present to capture all the biotinylated target present in the assay tube.

PerkinElmer, Inc.  
549 Albany Street  
Boston, MA 02118 USA  
P: (800) 762-4000 or (+1) 203-925-4602  
[www.perkinelmer.com/nenradiochemicals](http://www.perkinelmer.com/nenradiochemicals)

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