

# Fluorescent Imaging Agent

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

## GastroSense™ 750

**Product Number: NEV11121**

**DESCRIPTION:** *GastroSense™ 750* is a near-infrared, fluorescently-labeled macromolecule that may be used to monitor the effects of disease or drugs on gastric motility and or gastric emptying. It may also be used as an anatomical marker for the gastrointestinal tract.

**MATERIAL** (*Needs to be reconstituted*)

**CONTENTS:** Each vial contains 3 nmol of *GastroSense 750* in dry solid form. Reconstitute *GastroSense 750* with 1.2 mL of 1 x PBS before gavaging or feeding to animals. The packaged material provides sufficient reagent for imaging approximately 10 mice (weighing ~25 grams each) when using the recommended dose of 0.25 nmol (in 100 µL of PBS) of *GastroSense 750* per mouse.

**PROPERTIES:** The physical properties of *GastroSense 750* can be found in **Table 1** and **Figure 1**.

### STORAGE & HANDLING:

- Upon receipt, *GastroSense 750* should be **IMMEDIATELY STORED AT 2-8 °C AND PROTECTED FROM LIGHT.**
- When stored and handled properly, *GastroSense 750* in its dry solid form is stable for up to six months.
- **Once reconstituted, *GastroSense 750* is stable for up to 10 days when stored at 2-8 °C and protected from light.**
- Allow *GastroSense 750* imaging agent to equilibrate to room temperature before introducing into animals.

### IN VIVO IMAGING AND APPLICATIONS:

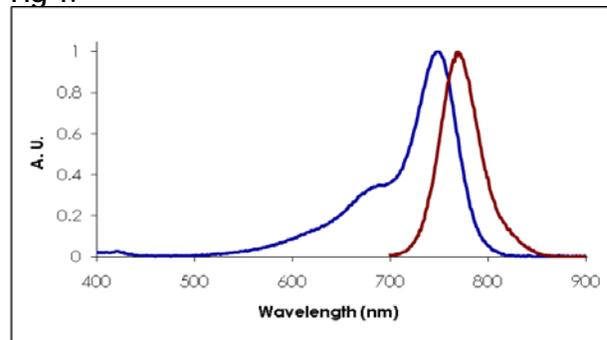
- GastroSense may be reconstituted with 1x PBS. A methylcellulose solution may also be used or it may be reconstituted with a liquid diet supplement solution.
- The recommended procedure for *in vivo* imaging with *GastroSense 750* is administration via gavage or in solid food (egg yolk) and then imaging at the desired time points beginning immediately after ingestion.

**Table 1. *GastroSense 750* Properties**

Property	Specification
MW	~40,000 g mol <sup>-1</sup>
Fluorescence <sup>1</sup>	
• Excitation	750 ± 5 nm
• Emission	770 ± 5 nm
Absorbance	750 ± 5 nm
Purity <sup>2</sup>	>95 %
Appearance	Clear blue solution

1. Absorbance and fluorescence maxima of *GastroSense 750* in 1x PBS.
2. As determined by SE-HPLC and measuring absorbance at 750 nm.

**Fig 1.**



Absorbance and fluorescence emission spectra in 1x PBS.

- GastroSense may also be administered as part of a solid diet by applying the reconstituted solution to egg yolk. When added to a solid diet it may be easier to reconstitute the vial of *GastroSense 750* with 300  $\mu$ L of 1x PBS and use 25  $\mu$ L per mouse.
- Clearance times will depend on the method of administration and the animal model used. For example when gavaged as a liquid in normal healthy mice the average half-life in the stomach may be as little as 15-30 minutes though times will vary significantly based on age, sex and strain of animal. When *GastroSense 750* is administered as part of a solid diet clearance half-lives typically increase.
- GastroSense remains localized in the GI tract. It does not appear to be absorbed into the bloodstream.

## APPLICATIONS:

- **Imaging in Gastric Emptying:** *GastroSense 750* may be used to study the effect of drugs or disease progression on gastric emptying or gastric motility.
- **Imaging as an anatomical marker:** *GastroSense 750* may be used as an anatomical reference marker for imaging the gastrointestinal tract.

## NOTES:

- *PerkinElmer's GastroSense750* is intended for research purposes only and is not for human use. It must be used by or directly under the supervision of a technically qualified individual experienced in handling potentially hazardous materials. Please read the Material Safety Data Sheet (MSDS) provided for this product.
- Several of *PerkinElmer's* products and product applications are covered by U.S and foreign patents and patents pending. Our products are not available for resale or other commercial uses without a specific agreement from *PerkinElmer*.