

## IVISense™ Cat B 750 FAST Fluorescent Probe

Product Number: NEV11098

### DESCRIPTION

IVISense™ Cat B 680 FAST Fluorescent Probe is a member of a family of activatable fluorescent imaging agents comprising a novel architecture, termed F.A.S.T. (Fluorescent Activatable Sensor Technology), that confers an improved pharmacokinetic profile with earlier imaging time points. This architecture offers higher target specific signal with reduced background while also reducing the optimal imaging time after injection.

IVISense™ Cat B 750 FAST Fluorescent Probe is a Cathepsin B activatable agent that is optically silent upon injection and produces fluorescent signal after cleavage by Cathepsin B produced by inflammatory cells and tumor cells. IVISense™ Cat B 750 FAST Fluorescent Probe may be used to monitor inflammation, tumor activity, progression of disease and the efficacy of therapeutic treatment in applications such as oncology, inflammation, cardiovascular disease, and some neurological diseases.

### MATERIAL

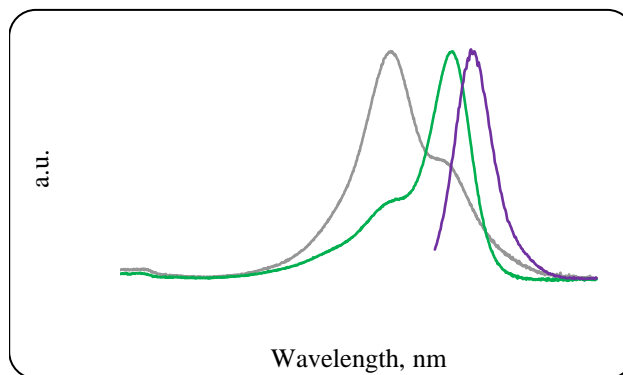
Each vial contains 48 nmol of IVISense™ Cat B 750 FAST Fluorescent Probe in dry solid form. IVISense™ Cat B 750 FAST Fluorescent Probe has been filtered through a 0.2 µm filter prior to drying. Reconstitute IVISense™ Cat B 750 FAST Fluorescent Probe with 1.2 mL of 1 x PBS before injecting into animals. The packaged material provides sufficient reagent for imaging approximately 10 mice (weighing ~25 grams each) when using the recommended dose of 4 nmols (100 µL) of IVISense™ Cat B 680 FAST Fluorescent Probe per mouse. Some applications like Atherosclerosis imaging require a higher dose.

### STORAGE & HANDLING

- Upon receipt, IVISense™ Cat B 750 FAST Fluorescent Probe should be IMMEDIATELY STORED AT -20 °C AND PROTECTED FROM LIGHT.
- When stored and handled properly, IVISense™ Cat B 750 FAST Fluorescent Probe is stable for up to 12 months in dry solid form.
- Before opening the vial, check to ensure that all of the solid material is at the bottom of the vial.
- Once reconstituted, the solution is stable up to 14 days when stored at 2-8°C and protected from light.

Property	Specification
MW	23,000 g mol <sup>-1</sup>
Fluorescence <sup>1</sup>	
• Excitation	750 nm
• Emission	770 nm
Absorbance <sup>1</sup>	750 nm (activated)
Purity <sup>2</sup>	>95%
Appearance	Blue Solid

1. Absorbance and fluorescence in 1xPBS.
2. As determined by RP-HPLC, measuring absorbance at 750nm



## IN VIVO IMAGING & APPLICATIONS

- Cathepsin B is a cysteine protease involved in the degradation of the extracellular matrix and may be one of the key factors in cancer progression. Cathepsin B correlates with invasiveness and metastatic capabilities in many tumors. In breast cancer specifically, high expression levels of cathepsin B have been linked to highly aggressive tumors and poor clinical outcome. Cathepsin B is also upregulated in a variety of inflammatory cells (including eosinophils, neutrophils, and macrophages), and may provide an inflammation readout that indicates the potential vulnerability of Atherosclerotic plaques in Cardiovascular disease.
- The generally recommended procedure for in vivo imaging with IVISense™ Cat B 750 FAST Fluorescent Probe is administration via intravenous injection and imaging 6 hours post injection. Earlier and later time points may be appropriate for some disease models, and the optimal imaging time point for any application should be determined empirically. Some applications like imaging of atherosclerotic plaques may require a 8 nmol dose and may benefit from a later imaging time point.
- IVISense™ Cat B 750 FAST Fluorescent Probe enables imaging of Cathepsin B activity In applications including cardiovascular disease, oncology, inflammation, and certain neurological diseases.

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The Revvity logo consists of the word "revvity" in a lowercase, sans-serif font. The letters are black and have a modern, clean appearance.