

IVISense™ Cat B 680 FAST Fluorescent Probe

Product Number: NEV11112

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 680 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 680 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

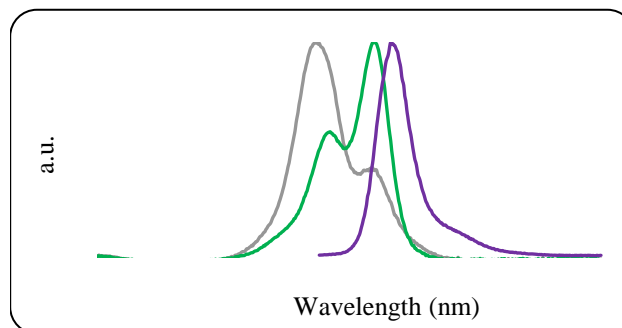
Each vial contains 24 nmol of IVISense™ Cat B 680 FAST Fluorescent Probe in dry solid form. IVISense™ Cat B 680 FAST Fluorescent Probe has been filtered through a 0.2 µm filter prior to drying. Reconstitute IVISense™ Cat B 680 FAST Fluorescent Probe with 1.2 mL of 1 x PBS before injecting into animals. The packaged material provides sufficient reagent for imaging approximately 10 mice (weighing ~25 grams each) when using the recommended dose of 2 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 680 FAST Fluorescent Probe should be IMMEDIATELY STORED AT 2-8 °C AND PROTECTED FROM LIGHT.
- When stored and handled properly, IVISense™ Cat B 680 FAST Fluorescent Probe is stable for up to six 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	33,000 g mol ⁻¹
Fluorescence ¹	
• Excitation	675 nm
• Emission	693 nm
Absorbance ¹	675 nm (activated)
Purity ²	>95%
Appearance	Blue Solid

1. Absorbance and fluorescence in 1xPBS.
2. As determined by RP-HPLC, measuring absorbance at 675nm



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 680 FAST Fluorescent Probe is administration via intravenous injection and imaging 6-24 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 4 nmol dose and may benefit from a later imaging time point.
- IVISense™ Cat B 680 FAST Fluorescent Probe enables imaging of Cathepsin B activity in applications including cardiovascular disease, oncology, inflammation, and certain neurological diseases.

The information provided in this document is for reference purposes only and may not be all-inclusive. Revvity, Inc., its subsidiaries, and/or affiliates (collectively, "Revvity") do not assume liability for the accuracy or completeness of the information contained herein. Users should exercise caution when handling materials as they may present unknown hazards. Revvity shall not be liable for any damages or losses resulting from handling or contact with the product, as Revvity cannot control actual methods, volumes, or conditions of use. Users are responsible for ensuring the product's suitability for their specific application. REVVITY EXPRESSLY DISCLAIMS ALL WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDLESS OF WHETHER ORAL OR WRITTEN, EXPRESS, OR IMPLIED, ALLEGEDLY ARISING FROM ANY USAGE OF ANY TRADE OR ANY COURSE OF DEALING, IN CONNECTION WITH THE USE OF INFORMATION CONTAINED HEREIN OR THE PRODUCT ITSELF
NEV11112-R Rev01

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