

IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe

Product Number: NEV11171

DESCRIPTION

IVISense™ Pan Cathepsin 750 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™ Pan Cathepsin 750 FAST Fluorescent Probe is a protease-activatable, pan-cathepsin fluorescent in vivo imaging agent that is activated by key disease-associated proteases such as Cathepsin B, L, S, K, V and D. IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe is not cleaved by trypsin or plasmin. Cathepsins are produced by inflammatory and tumor cells. IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe is optically silent in its un-activated state and becomes highly fluorescent following protease-mediated activation. IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe has a half-life in plasma of 30 minutes. IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe may be used to study disease onset and progression in animal models of oncology, inflammation, and atherosclerosis.

MATERIAL

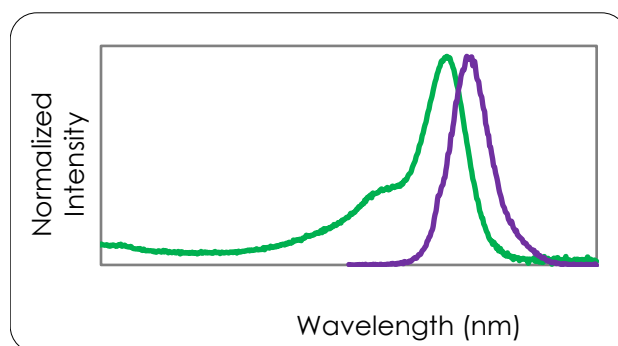
Pan Cathepsin 750 FAST Fluorescent Probe: Each vial contains 48 nmol of IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe in dry solid form. IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe has been filtered through a 0.2 µm filter prior to drying. Reconstitute IVISense™ Pan Cathepsin 750 FAST Fluorescent 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 nmol (100 µL) of IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe per mouse.

STORAGE & HANDLING

- Upon receipt, IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe should be IMMEDIATELY STORED AT 2-8 °C AND PROTECTED FROM LIGHT.
- When stored and handled properly, IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe is stable for up to 12 months in dry solid form.

Property	Specification
MW	~22,000 g mol ⁻¹
Fluorescence ¹	
• Excitation	750 nm
• Emission	770 nm
Purity ²	>95%
Appearance	Blue Solid

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



- 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.

IN VIVO IMAGING & APPLICATIONS

- The generally recommended procedure for in vivo imaging with IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe is administration via intravenous injection and imaging 6-24 hours post injection.
- Imaging in Oncology: IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe can be used as a marker for tumor progression in animal tumor models. Optimal signal may be found in 4T1 tumors from 6-24h with extremely high target to background ratios. Washout of signal in tissue occurs by 72h.
- Imaging in Inflammation: IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe can be used as a marker for the inflammatory response due to increased macrophage activity in animal models. In mouse models significantly higher IVISense™ Pan Cathepsin 750 FAST Fluorescent Probe signal in the inflamed footpad of DO11.10 mice was found to be associated with the presence of inflammatory cells.

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