TECHNICAL DATA SHEET

Fluorescent Imaging Agent

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

MMPSense™ 750 FAST FLOURESCENT IMAGING AGENT

Product Number: NEV10168

DESCRIPTION: *MMPSense™ 750* FAST is the first in 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.

MMPSense 750 FAST is a matrix metalloproteinase (MMP) activatable agent that is optically silent upon injection and produces fluorescent signal after cleavage by disease related MMP's. Activation can occur by a broad range of MMP's including MMP 2, 3, 7, 9, 12, and 13. MMP activity is involved in many disease-related processes including cancer progression, invasion and metastasis, rheumatoid arthritis, pulmonary diseases and areas of cardiovascular disease. *MMPSense 750 FAST* may be used to monitor the progression of these diseases or to evaluate the potential therapeutic efficacy of drugs targeting the underlying mechanisms involved in these diseases.

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

CONTENTS: Each vial contains 24 nmol of *MMPSense 750 FAST* in dry solid form. *MMPSense 750 FAST* has been filtered through a 0.2 µm filter prior to drying. Reconstitute *MMPSense 750 FAST* 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 nmol (100 µL) of *MMPSense 750 FAST* per mouse.

PROPERTIES: The physical characteristics of *MMPSense 750 FAST* can be found in **Table 1 and Figure 1.**

Table 1. *MMPSense 750 FAST Characteristics*

Property	Specification
MW	~ 43,000 g mol^{-1}
Fluorescence[1]	
• Excitation	749 nm
• Emission	775 nm
Absorbance[1]	750 nm (activated)
Purity[2]	>95%
Appearance	Dark blue solid

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

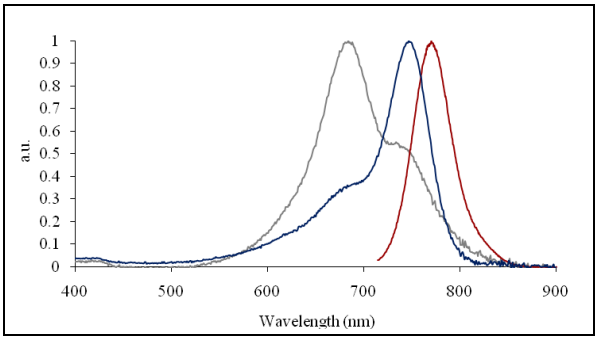

Figure 1. Normalized absorbance (grey), excitation (blue) and fluorescence emission (red) spectra of

STORAGE & HANDLING:

- Upon receipt, *MMPSense 750 FAST* should be **IMMEDIATELY STORED AT 2-8 °C AND PROTECTED FROM LIGHT.**
- When stored and handled properly, *MMPSense 750 FAST* is stable for up to nine 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.

- After reconstituting with PBS, gently swirl the solution to ensure that the solid is fully in solution.
- **Once reconstituted with 1 x PBS, the solution is stable up to 10 days when stored at 2-8 ºC and protected from light**.

IN VIVO IMAGING AND APPLICATIONS:

- The generally recommended procedure for *in vivo* imaging with *MMPSense 750 FAST* is administration via intravenous injection and imaging **6 hours post injection.**
- *MMPSense 750 FAST* will clear from tissues after approximately 96 hours. Repeat injection and imaging may be performed every four days for longitudinal studies. It is recommended that a pre-injection baseline image be taken prior to reinjection and imaging.
- *MMPSense 750 FAST* enables imaging of tumors and inflammation in a broad range of oncology, pulmonary and cardiovascular applications.

NOTES:

- *PerkinElmer's MMPSense 750 FAST* 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 with *PerkinElmer*.

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