IVISense™ 680 Fluorescent Cell Labeling Dye (5 x 0.2mg)

Product Number: NEV12000

DESCRIPTION

IVISense™ *680 Fluorescent Cell Labeling Dye* is a near infrared fluorescent cell labeling agent that intercalates into the plasma membrane of primary cells and cell lines.
Cells are brightly labeled and retain excellent viability and function, with the near infrared wavelength of the fluorescence offering optimal in vitro and in vivo detection.

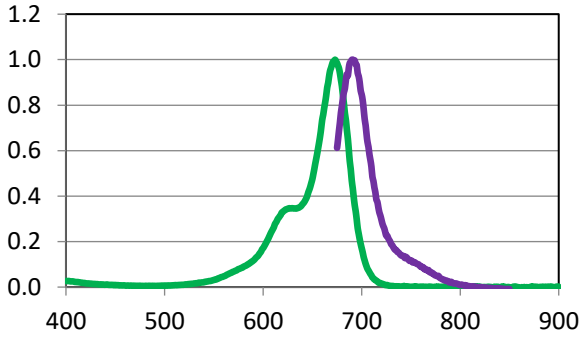
Property	Specification
MW	~1173 g mol^{-1}
Fluorescence[1] • Emission	696 nm
Absorbance[1]	676 nm
Purity[2]	>95%
Appearance	Light blue Solid

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

CONTENTS

- Each vial contains 0.2 mg of labeling agent formulated in polyethylene glycol and is in dry solid form.
- The packaged material in each vial provides sufficient reagent for up to 2 x 10^8 cells.

STORAGE & HANDLING



- Upon receipt, IVISense™ 680 Fluorescent Cell Labeling Dye should be IMMEDIATELY STORED AT 4 °C AND PROTECTED FROM LIGHT.
- When stored and handled properly, IVISense™ 680 Fluorescent Cell Labeling Dye in its dry solid form is stable for up to three months.
- Before opening the vial check to ensure that all of the solid material is at the bottom of the vial.
- After reconstituting with 1X PBS, gently swirl the solution to ensure that the solid is fully in solution.
- Once reconstituted, IVISense™ 680 Fluorescent Cell Labeling Dye is stable for up to 14 days when stored at 2-8 °C and protected from light.
- Allow reconstituted IVISense™ 680 Fluorescent Cell Labeling Dye imaging agent to equilibrate to room temperature before introducing into animals.

APPLICATIONS

- Whole cell in vitro labeling of primary cells and cell lines for NIR fluorescence microscopy.
- Whole cell in vitro labeling of primary cells and cell lines for in vivo tracking by either ex vivo flow cytometry or in vivo noninvasive NIR fluorescence imaging.
- Whole cell in vitro labeling of tumor cells and cell lines for orthotopic implantation and in vivo noninvasive NIR fluorescence monitoring.

General Protocol for Labeling Cells with IVISense™ 680 Fluorescent Cell Labeling Dye

Materials

- IVISense™ 680 Fluorescent Cell Labeling Dye cell labeling agent
- 1x PBS

Procedure

1. Wash the cells of interest once with sterile PBS or serum-free medium to remove serum proteins and lipids that may interfere with cell labeling.
2. Discard the supernatant and resuspend the cells (up to 250 x 10^6 cells/mL) in 2.0 mL of PBS in a 50 mL sterile conical tube.
3. Dissolve IVISense™ 680 Fluorescent Cell Labeling Dye (0.2mg of dye in 1g of PEG) in 1.3 mL of warm sterile PBS (37 °C) and mix by vortex until completely dissolved. This will yield 1.9 mL of the labeling agent.
4. Add 2.0 mL of the cell labeling solution to 2.0 mL of cells, and mix immediately by gentle vortexing. [Note: It may be required to optimize dose depending on the cells to be labeled.]
5. Incubate the cells for 15 min at room temperature, protected from light.
6. Dilute the cells for washing by adding 15-20 mL sterile RT PBS containing 1% FBS or complete medium, depending on your ultimate use for the cells.
7. Wash the cells 3 times with RT PBS containing 1% FBS to remove excess cell labeling agent. A final resuspension with sterile PBS alone can be used to decrease the FBS levels in the cell preparation.
8. Count, culture, or transfer cells as required by the application.

   IVISense™ 680 Fluorescent Cell Labeling Dye is highly soluble in aqueous solution and, thus, does not need to transition from organic to aqueous solution upon addition to the cell suspension. This allows quick dispersion into the cell medium, and very uniform cell labeling is generally achieved.

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