

Certificate of Analysis

www.tocris.com

Product Name: JFX 650, NHS ester

Catalog No.: 8163

Batch No.: 1

CAS Number: 2396479-84-6

IUPAC Name: 2-(5,5-Dimethyl-3-(pyrrolidin-1-ium-1-ylidene-d₈)-7-(pyrrolidin-1-yl-d₈)-3,5-dihydrodibenzo[*b,e*]silin-10-yl)-4-(((2,5-dioxopyrrolidin-1-yl)oxy)carbonyl)benzoate

1. PHYSICAL AND CHEMICAL PROPERTIES

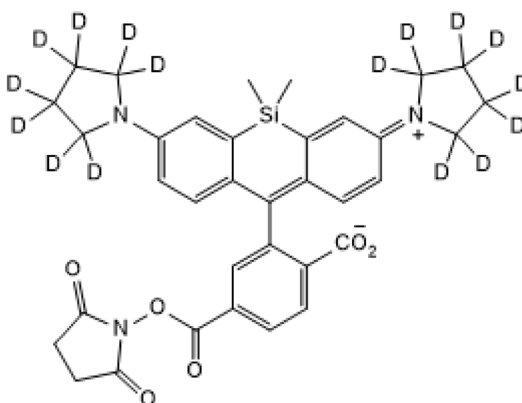
Batch Molecular Formula: C₃₅H₁₉D₁₆N₃O₆Si

Batch Molecular Weight: 637.86

Physical Appearance: Green solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 88.4% purity at 655 nm

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 660 nm (Ethanol + 0.1% TFA)

λ_{ex}: 661 nm (Ethanol + 0.1% TFA)

λ_{em}: 677 nm (Ethanol + 0.1% TFA)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Key Information: JFX™ 650, NHS ester is a red fluorescent deuterated Janelia Fluor® dye; supplied with an NHS ester reactive group for the labeling of primary amines. Suitable for live cell imaging. Application: Suitable for confocal microscopy, super resolution microscopy (SRM) techniques including dSTORM (in both live and fixed cells) and STED. Cell permeable. Properties and Photophysical Data: JFX™ 650, NHS ester shows enhanced brightness, photostability and chromostability. NHS ester can be converted to relevant substrate for use in self-labeling tag systems, e.g. HaloTag® and SNAP-tag®. Excitation and emission maxi... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

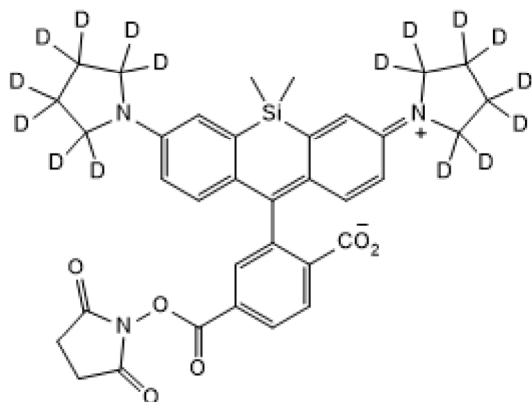
Batch Molecular Formula: C₃₅H₁₉D₁₆N₃O₆Si

Batch Molecular Weight: 637.86

Physical Appearance: Green solid

Minimum Purity: ≥85%

Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license from the Howard Hughes Medical Institute, Janelia Research Campus

References:

Grimm *et al* (2021) A general method to improve fluorophores using deuterated auxochromes. JACS **1** 690. PMID: 34056637.

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