Certificate of Analysis

Product Name: **Janelia Fluor® 635b, NHS ester** **Catalog No.: 8157** **Batch No.: 2**

IUPAC Name: 2,5-Dioxopyrrolidin-1-yl 3,7-bis(3-fluoroazetidin-1-yl)-5,5-dimethyl-3'*H*,5*H*-spiro[dibenzo[*b*,*e*]siline-10,1'-isobenzofuran]-6'-carboxylate

1. PHYSICAL AND CHEMICAL PROPERTIES

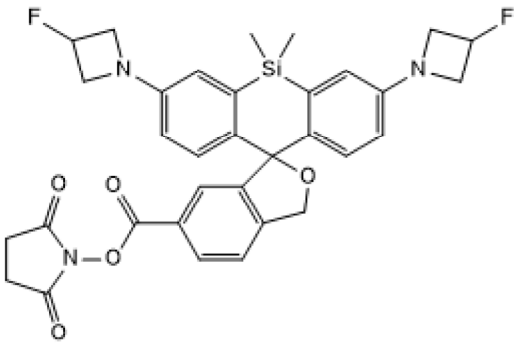
Batch Molecular Formula: $C_{33}H_{31}F_2N_3O_5Si$

Batch Molecular Weight: 615.71

Physical Appearance: Pale blue solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity at 648 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 653 nm (EtOH + 0.1% TFA)

λ_{ex}: 654 nm (EtOH + 0.1% TFA)

λ_{em}: 667 nm (EtOH + 0.1% TFA)

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Product Name: **Janelia Fluor® 635b, NHS ester** **Catalog No.: 8157** **Batch No.: 2**

IUPAC Name: 2,5-Dioxopyrrolidin-1-yl 3,7-bis(3-fluoroazetidin-1-yl)-5,5-dimethyl-3'*H*,5*H*-spiro[dibenzo[*b*,*e*]siline-10,1'-isobenzofuran]-6'-carboxylate

Description:

Spontaneously Blinking Janelia Fluor® Dyes allow facile single-molecule localization microscopy (SMLM) in cells and dense biomolecular structures, without the need for photoactivation or redox buffers. These spontaneously blinking dyes harness Janelia Fluor® technology to deliver dyes that automatically cycle between 'off' and 'on' states with an ideal duty cycle for super resolution microscopy experiments. Key Information: Janelia Fluor® 635b, NHS ester is a spontaneously blinking fluorescent dye, supplied with an NHS ester reactive group for the labeling of primary amines. Suitable for DNA labelling using amine-terminated olig... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

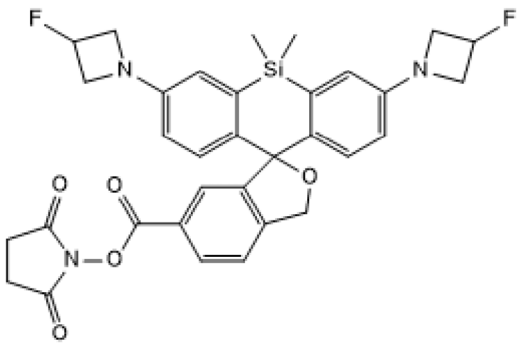
Batch Molecular Formula: $C_{33}H_{31}F_2N_3O_5Si$

Batch Molecular Weight: 615.71

Physical Appearance: Pale blue solid

Minimum Purity: ≥90%

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:

Holland *et al* (2024) A series of spontaneously blinking dyes for super-resolution microscopy. bioRxiv. PMID: 38766149.

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