

Certificate of Analysis

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Product Name: Janelia Fluor® 630b, NHS ester

Catalog No.: 8155

Batch No.: 1

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

1. PHYSICAL AND CHEMICAL PROPERTIES

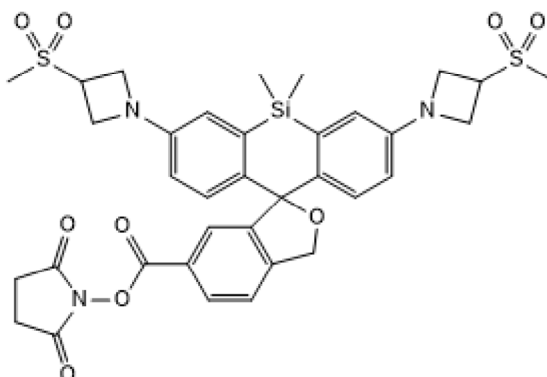
Batch Molecular Formula: C₃₅H₃₇N₃O₉S₂Si

Batch Molecular Weight: 735.9

Physical Appearance: Blue solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.1% purity at 648 nm

Mass Spectrum: Consistent with structure

λ_{max}: 650 nm (3:5 CH₃CN:EtOH + 0.1% TFA)

λ_{ex}: 654 nm (3:5 CH₃CN:EtOH + 0.1% TFA)

λ_{em}: 671 nm (3:5 CH₃CN:EtOH + 0.1% TFA)

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

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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® 630b, NHS ester is a spontaneously blinking fluorescent dye, supplied with an NHS ester reactive group for the labeling of primary amines. Suitable for characterizing the physical properties o... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

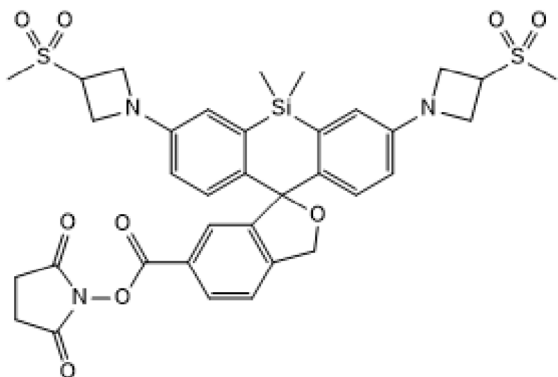
Batch Molecular Formula: C₃₅H₃₇N₃O₉S₂Si

Batch Molecular Weight: 735.9

Physical Appearance: 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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