Certificate of Analysis

Product Name: **JFX 650, Maleimide** **Catalog No.: 8162** **Batch No.: 1**

IUPAC Name: 2-(5,5-Dimethyl-3-(pyrrolidin-1-ium-1-ylidene-d_8)-7-(pyrrolidin-1-yl-d_8)-3,5-dihydrodibenzo[*b*,*e*]silin-10-yl)-4-((2-(2,5-dioxo-2,5-dihydro-1*H*-pyrrol-1-yl)ethyl)carbamoyl)benzoate trifluoroacetate

1. PHYSICAL AND CHEMICAL PROPERTIES

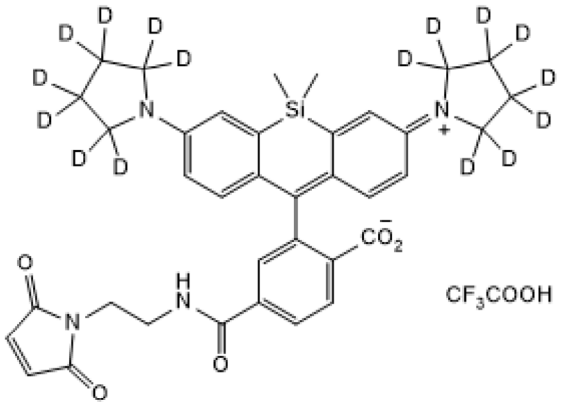
Batch Molecular Formula: $C_{37}H_{22}D_{16}N_4O_5Si.CF_3CO_2H$

Batch Molecular Weight: 776.94

Physical Appearance: Blue solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 94.9% purity at 655 nm

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 656 nm (Ethanol + 0.1% TFA)

λ_{ex}: 661 nm (Ethanol + 0.1% TFA)

λ_{em}: 673 nm (Ethanol + 0.1% TFA)

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

Product Name: **JFX 650, Maleimide** **Catalog No.: 8162** **Batch No.: 1**

IUPAC Name: 2-(5,5-Dimethyl-3-(pyrrolidin-1-ium-1-ylidene-d_8)-7-(pyrrolidin-1-yl-d_8)-3,5-dihydrodibenzo[*b*,*e*]silin-10-yl)-4-((2-(2,5-dioxo-2,5-dihydro-1*H*-pyrrol-1-yl)ethyl)carbamoyl)benzoate trifluoroacetate

Description:

Key Information: JFX™ 650, Maleimide is a red fluorescent deuterated Janelia Fluor® dye; supplied with a Maleimide reactive group for conjugation (thiol reactivity). 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, Maleimide shows enhanced brightness, photostability and chromostability. Maleimide can be converted to relevant substrate for use in self-labeling tag systems, e.g. HaloTag® and SNAP-tag®. Excitation and emission ... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

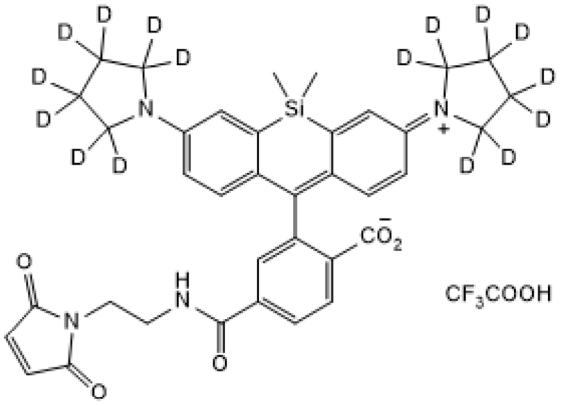
Batch Molecular Formula: $C_{37}H_{22}D_{16}N_4O_5Si.CF_3CO_2H$

Batch Molecular Weight: 776.94

Physical Appearance: Blue solid

Minimum Purity: ≥90%

Batch Molecular Structure:



Storage: Store at -20°C

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.

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