bio-techne
TOCRIS

Print Date: Oct 7th 2024

Certificate of Analysis

www.tocris.com

Product Name: **Janelia Fluor® 585, NHS ester** **Catalog No.: 6418** **Batch No.: 3**

CAS Number: 1811539-88-4

IUPAC Name: 1-[10-[2-Carboxy-5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]-7-(3,3-difluoro-1-azetidinyl)-9,9-dimethyl-2(9*H*)-anthracenylidene]-3,3-difluoroazetidinium, inner salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{34}H_{27}F_4N_3O_6$

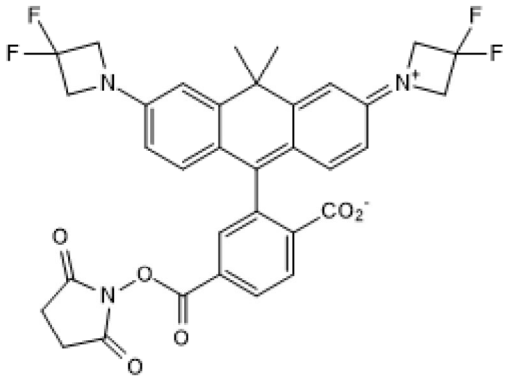
Batch Molecular Weight: 649.6

Physical Appearance: Off-white solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity at 230 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 590 nm (RPM-00093)

λ_{ex}: 591 nm (RPM-00093)

λ_{em}: 614 nm (RPM-00093)

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Description:

Key Information: Janelia Fluor® 585, NHS ester is an orange fluorogenic fluorescent dye; supplied with an NHS ester reactive group for the labeling of primary amines. Suitable for live cell imaging. Applications: Suitable for confocal microscopy, two-photon excitation fluorescence microscopy, super resolution microscopy (SRM) techniques including dSTORM (in both live and fixed cells). Cell permeable. Properties and Photophysical Data: NHS ester can be converted to relevant substrate for use in self-labeling tag systems, e.g. HaloTag® and SNAP-tag®. Excitation and emission maxima (λ) are 585 nm and 609 nm, respectively; qu... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

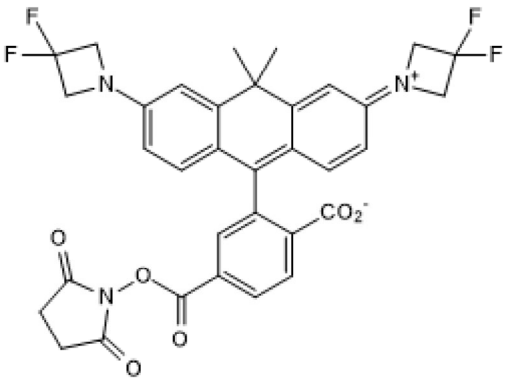
Batch Molecular Formula: $C_{34}H_{27}F_4N_3O_6$

Batch Molecular Weight: 649.6

Physical Appearance: Off-white solid

Minimum Purity: ≥95%

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.

Solubility & Usage Info:

DMSO to 100 mM

To measure the absorbance spectrum of this dye we recommend the following solvent: trifluoroethanol plus 0.1% TFA.

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:

Zheng *et al* (2019) Rational design of fluorogenic and spontaneously blinking labels for super-resolution imaging. ACS Cent.Sci. ***5*** 1602. PMID: 31572787.

Grimm *et al* (2017) A general method to fine-tune fluorophores for live-cell and *in vivo* imaging. Nat.Methods ***14*** 987. PMID: 28869757.