

Certificate of Analysis

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Product Name: Janelia Fluor® 585, NHS ester

Catalog No.: 6418

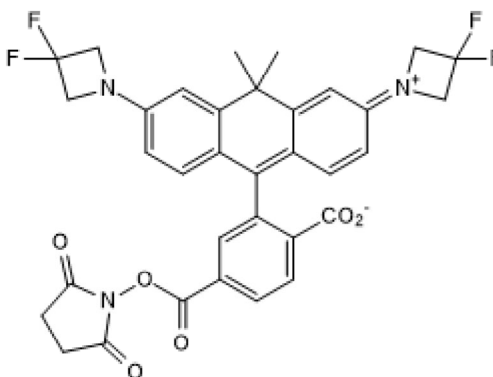
Batch No.: 3

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-azetidiny)-9,9-dimethyl-2(9H)-anthracenylidene]-3,3-difluoroazetidinium, inner salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₃₄ H ₂₇ F ₄ N ₃ O 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
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
UV Spectrum:	Consistent with structure
λ_{max}:	590 nm (TFE + 0.1% TFA)
λ_{ex}:	591 nm (TFE + 0.1% TFA)
λ_{em}:	614 nm (TFE + 0.1% TFA)

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

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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:

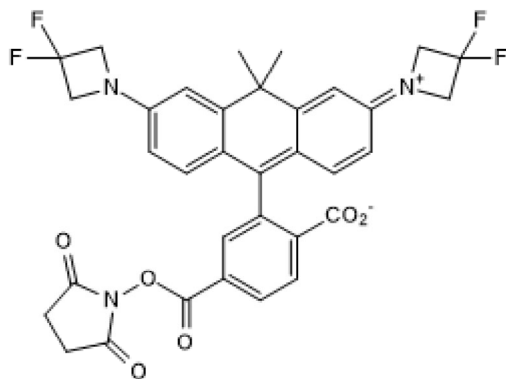
Batch Molecular Formula: C₃₄H₂₇F₄N₃O₆

Batch Molecular Weight: 649.6

Physical Appearance: Off-white solid

Minimum Purity: ≥95%

Batch Molecular Structure:



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.

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

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