Certificate of Analysis

Product Name: **HM Janelia Fluor® 526, SE** **Catalog No.: 7312** **Batch No.: 1**

CAS Number: 2376841-30-2

IUPAC Name: 2,5-Dioxopyrrolidin-1-yl 3',6'-bis(3,3-difluoroazetidin-1-yl)-2',7'-difluoro-3*H*-spiro[isobenzofuran-1,9'-xanthene]-6-carboxylate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{31}H_{21}F_6N_3O_6$

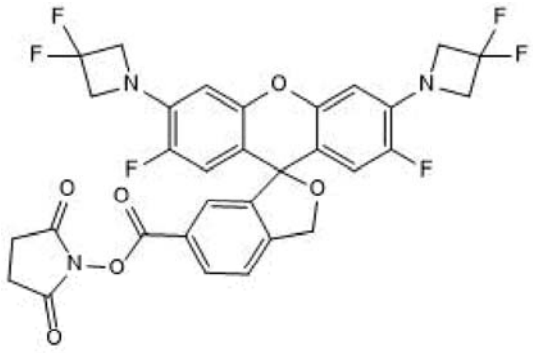
Batch Molecular Weight: 645.51

Physical Appearance: Pink solid

Solubility: DMSO to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 540 nm (EtOH + 0.1% TFA)

λ_{ex}: 544 nm (EtOH + 0.1% TFA)

λ_{em}: 564 nm (EtOH + 0.1% TFA)

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Description:

Fluorogenic spontaneously blinking yellow-emitting dye; hydroxymethyl derivative of JF526. Suitable for super-resolution imaging including dSTORM, STED and single-molecule localization spectroscopy (SMLSM). The spontaneous blinking properties of HM Janelia Fluor® 526, avoids the requirement for strongly reducing dSTORM buffers. Also suitable for conventional confocal microscopy and live cell imaging. NHS ester can be converted to relevant substrate for use in self-labeling tag systems, e.g. HaloTag® and SNAP-tag®. To measure the absorbance spectrum of this dye we recommend the following solvent: TFE plus 0.1% TFA. We also of... Please see product datasheet on www.tocris.com for full description.

Physical and Chemical Properties:

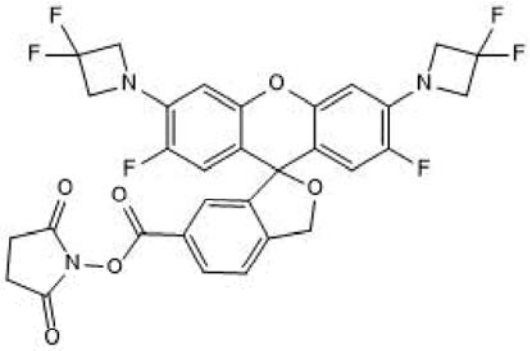
Batch Molecular Formula: $C_{31}H_{21}F_6N_3O_6$

Batch Molecular Weight: 645.51

Physical Appearance: Pink 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.

Solubility & Usage Info:

DMSO to 20 mM

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. Our standard recommendations are:

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.