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TOCRIS

Print Date: Jul 29th 2025

Certificate of Analysis

www.tocris.com

Product Name: **Pepstatin A Janelia Fluor® 526** **Catalog No.: 7314** **Batch No.: 1**

CAS Number: 2410614-07-0

IUPAC Name: 2-(3-(3,3-Difluoroazetidin-1-ium-1-ylidene)-6-(3,3-difluoroazetidin-1-yl)-2,7-difluoro-3*H*-xanthen-9-yl)-4-(((6*S*,9*S*,12*S*,13*S*,17*S*,20*S*,21*S*)-13,21-dihydroxy-12,20-diisobutyl-6,9-diisopropyl-2,17-dimethyl-4,7,10,15,18,23-hexaoxo-5,8,11,16,19,24-hexaazatriacontan-30-yl)carbamoyl)benzoate trifluoroacetate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{67}H_{91}F_6N_9O_{12}.CF_3CO_2H$

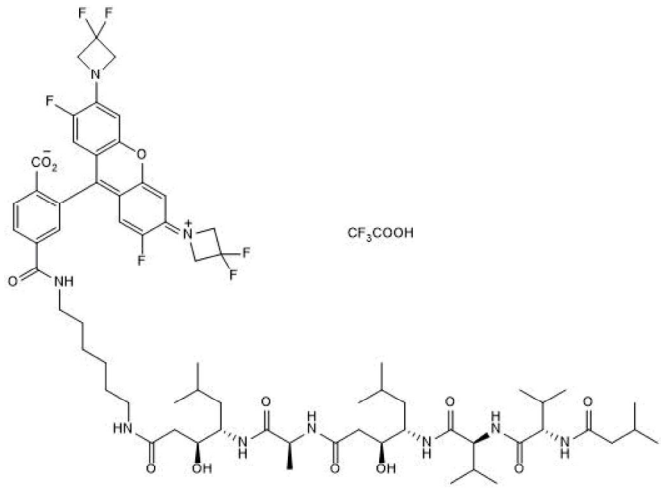
Batch Molecular Weight: 1442.53

Physical Appearance: Pink solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 93.8% purity at 532 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 530 nm (TFE + 0.1% TFA)

λ_{ex}: 530 nm (TFE + 0.1% TFA)

λ_{em}: 549 nm (TFE + 0.1% TFA)

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Description:

Key information: Pepstatin A Janelia Fluor® 526 is a fluorogenic green-emitting lysosome tracker and stain for live cell imaging. Used for: fixed and live-cell imaging of lysosomes. Application: Suitable for confocal microscopy and super resolution microscopy (SRM) including STED and 3D-SIM (structured illumination microscopy), as well as two-color lattice light-sheet microscopy. Properties and Photophysical Data: No wash step is required when used for multicolor microscopy experiments. Excitation and emission maxima (λ) are 530 nm and 549 nm, respectively; quantum yield = 0.87; extinction coefficient = 118,000 $M^{-1}cm^{-1}$. To measure th... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

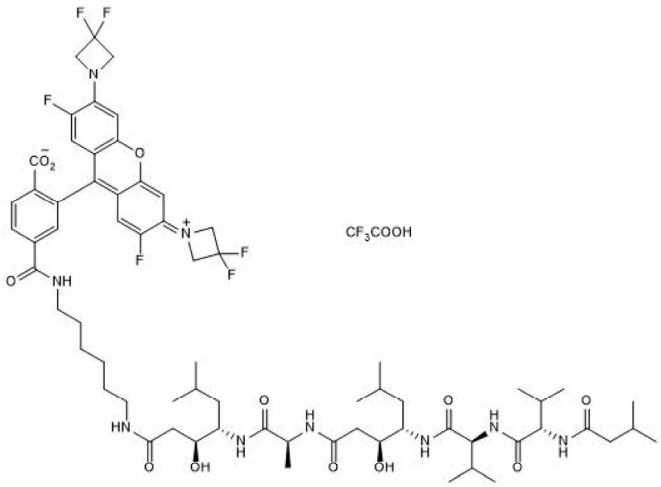
Batch Molecular Formula: $C_{67}H_{91}F_6N_9O_{12}.CF_3CO_2H$

Batch Molecular Weight: 1442.53

Physical Appearance: Pink 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.

Solubility & Usage Info:

DMSO to 10 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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.

Chen *et al* (2000) Probing the cathepsin D using a BODIPY FL-pepstatin A: applications in fluorescence polarization and microscopy. J.Biochem.Biophys.Methods ***42*** 137. PMID: 10737220.