

Product Name: Janelia Fluor[®] 552, Haloalkane

Catalog No.: 8948

Batch No.: 1

CAS Number: 2634129-34-1

IUPAC Name: 2-(3-(Azetidin-1-ium-1-ylidene)-6-(azetidin-1-yl)-2,7-difluoro-3*H*-xanthen-9-yl)-4-((2-(2-((6-chlorohexyl)oxy)ethoxy)ethyl)carbamoyl)benzoate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₇H₄₀ClF₂N₃O₆

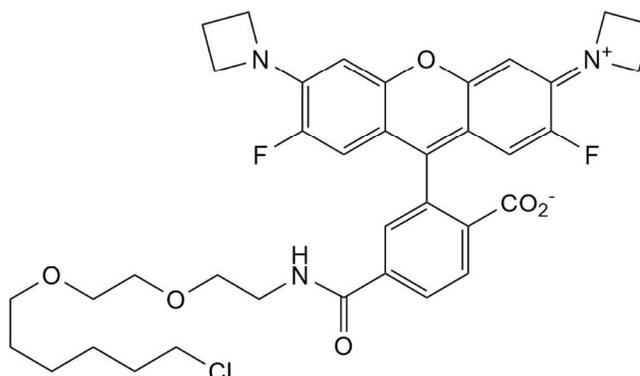
Batch Molecular Weight: 696.18

Physical Appearance: Purple solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.4% purity at 558 nm

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 555.0 nm (EtOH + 0.1% TFA)

λ_{ex}: 557 nm (EtOH + 0.1% TFA)

λ_{em}: 580 nm (EtOH + 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® 552, Haloalkane is a yellow cell-permeable fluorogenic dye with a chloroalkane handle. Also chemigenetic calcium indicator for imaging Ca²⁺ mediated responses. Upon self-labeling in WHaloCaMP modular biosensors, fluorescence output is modulated by photoinduced electron transfer (PET) to a protein based quencher. Application: live-cell imaging as a self-labeling tag substrate. Suitable for confocal microscopy, light sheet microscopy, super resolution microscopy (SRM) techniques including dSTORM (in both live and fixed cells). In vivo functional imaging of Ca²⁺ responses (flies/mice); multiplexed functional ima... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

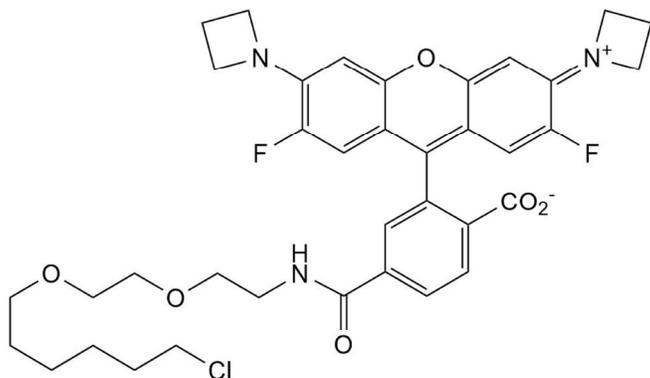
Batch Molecular Formula: C₃₇H₄₀ClF₂N₃O₆

Batch Molecular Weight: 696.18

Physical Appearance: Purple solid

Minimum Purity: ≥90%

Batch Molecular Structure:



References:

Farrants et al (2024) A modular chemigenetic calcium indicator for multiplexed in vivo functional imaging. *Nature Methods* **21** 1916. PMID: 39304767.

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

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

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