

# Certificate of Analysis

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**Product Name:** Janelia Fluor® 549, Haloalkane

**Catalog No.:** 8806

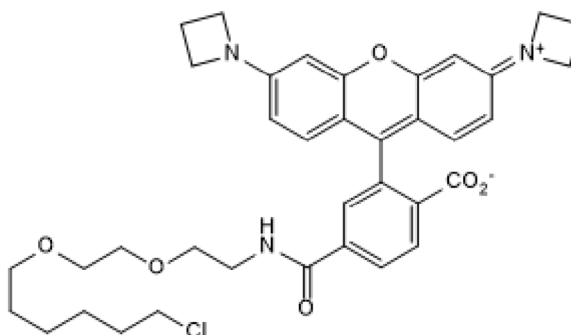
**Batch No.:** 1

**CAS Number:** 1811539-33-9

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

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Weight:** 660.21  
**Physical Appearance:** Purple solid  
**Solubility:** DMSO to 10 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 90.3% purity at 555 nm  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**UV Spectrum:** Consistent with structure  
**λ<sub>max</sub>:** 555 nm (Ethanol + 0.1% TFA)  
**λ<sub>ex</sub>:** 555 nm (Ethanol + 0.1% TFA)  
**λ<sub>em</sub>:** 576 nm (Ethanol + 0.1% TFA)

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

**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel: +1 612 379 2956

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#### Description:

**Key Information:** Janelia Fluor® 549, Haloalkane is a yellow cell-permeable fluorogenic fluorescent dye with a chloroalkane handle. **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). Stable to fixation. Cell permeable. **Properties and Photophysical Data:** Janelia Fluor® 549, Haloalkane shows a high degree of fluorogenicity. Excitation and emission maxima (λ) are 549 nm and 571 nm, respectively; quantum yield = 0.88. Janelia Fluor® is a registered trademark of Ho... Please see product specific page on www.tocris.com for full description.

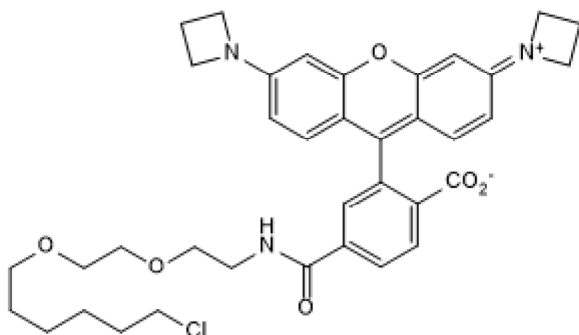
#### Physical and Chemical Properties:

**Batch Molecular Weight:** 660.21

**Physical Appearance:** Purple solid

**Minimum Purity:** ≥90%

#### Batch Molecular Structure:



#### References:

**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

**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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