bio-techne
TOCRIS

Print Date: Nov 14th 2025

Certificate of Analysis

www.tocris.com

Product Name: **Janelia Fluor® 549, Tetrazine** **Catalog No.: 6502** **Batch No.: 1**

IUPAC Name: 3,6-Di-1-azetidinyl-9-[[4-[(1,2,4,5-tetrazin-3-yl)benzyl]carbamoyl]-2-carboxyphenyl]xanthylium, inner salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{36}H_{29}N_7O_4$

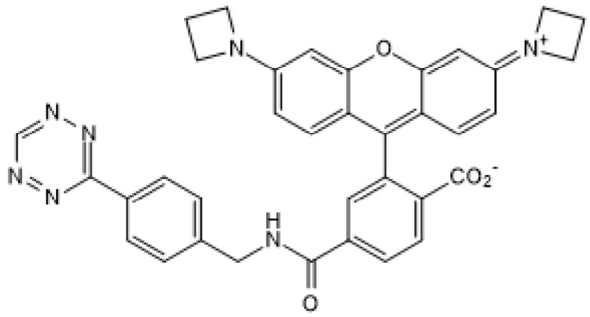
Batch Molecular Weight: 623.66

Physical Appearance: Purple solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 94.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

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

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Description:

Key Information: Janelia Fluor® 549, Tetrazine is a yellow fluorescent dye; supplied with a tetrazine reactive handle for copper-free click chemistry. Suitable for live-cell imaging. Application: Suitable for confocal microscopy and super resolution microscopy (SRM) techniques including dSTORM (in both live and fixed cells) and STED. Janelia Fluor® 549, tetrazine is cell permeable. It can be coupled directly to a protein of interest using bioorthogonal chemistry and unnatural amino acid technology and has been used in this way to label living primary neurons. Properties and Photophysical Data: Excitation and emission maxima (λ) ... Please see product specific page on www.tocris.com for full description.

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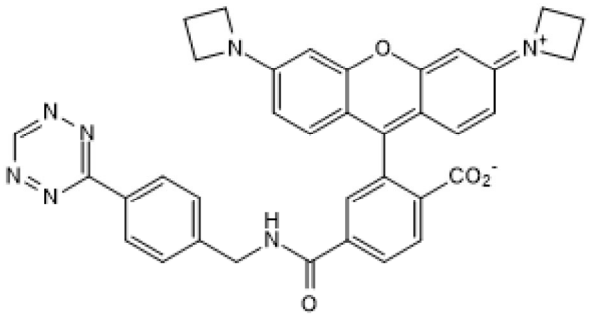

Storage: Store at -20°C

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

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:

Arsic *et al* (2022) Minimal genetically encoded tags for fluorescent protein labeling in living neurons. Nat.Commun. ***13***. PMID: 35031604.

Peng and Hang *et al* (2016) Site-specific bioorthogonal labeling for fluorescence imaging of intracellular proteins in living cells. J.Am.Chem.Soc. ***138*** 14423. PMID: 27768298.

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