

Certificate of Analysis

www.tocris.com

Product Name: Janelia Fluor® 646, Tetrazine

Catalog No.: 7279

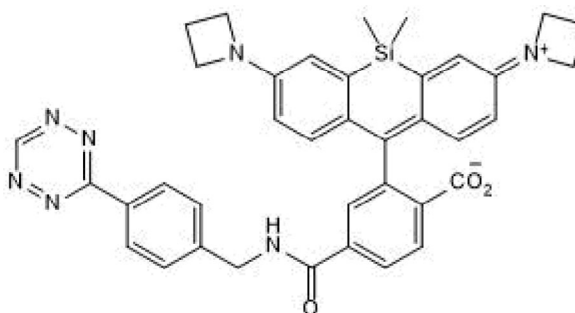
Batch No.: 1

CAS Number: 2042192-00-5

IUPAC Name: 4-((4-(1,2,4,5-Tetrazin-3-yl)benzyl)carbamoyl)-2-(3-(azetidin-1-ium-1-ylidene)-7-(azetidin-1-yl)-5,5-dimethyl-3,5-dihydrodibenzo[b,e]silen-10-yl)benzoate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₃₈ H ₃₅ N ₇ O ₃ Si
Batch Molecular Weight:	665.83
Physical Appearance:	Pink/purple solid
Solubility:	DMSO to 20 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 91.5% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
UV Spectrum:	Consistent with structure
λ_{max}:	655 nm (EtOH + 0.1% TFA)
λ_{ex}:	654 nm (EtOH + 0.1% TFA)
λ_{em}:	669 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® 646, Tetrazine is a red fluorescent dye; supplied with a tetrazine reactive handle for copper-free click chemistry. Suitable for live cell imaging. **Application:** Suitable for flow cytometry, confocal microscopy, super-resolution microscopy (SRM) techniques including dSTORM (in both live and fixed cells) and STED. Can be multiplexed for two-color imaging with Janelia Fluor® 549 Tetrazine (Cat. No. 6502). Cell-permeable. **Properties and Photophysical Data:** Excitation and emission maxima (λ) are 646 nm and 664 nm, respectively; quantum yield = 0.54; extinction coefficient = 152,000 M⁻¹cm⁻¹ (measured... Please see product specific page on www.tocris.com for full description).

Physical and Chemical Properties:

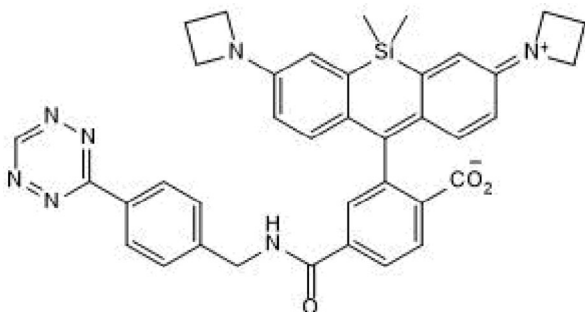
Batch Molecular Formula: C₃₈H₃₅N₇O₃Si

Batch Molecular Weight: 665.83

Physical Appearance: Pink/purple solid

Minimum Purity: ≥90%

Batch Molecular Structure:



References:

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 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. *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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