

Product Name: Janelia Fluor[®] 646, SE

Catalog No.: 6148

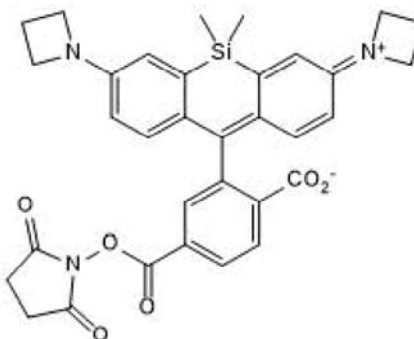
Batch No.: 4

CAS Number: 1811539-59-9

IUPAC Name: 1-[7-(1-Azetidinyl)-10-[2-carboxy-5-[[2,5-dioxo-1-pyrrolidinyl]oxy]carbonyl]phenyl]-9,9-dimethyl-9-silaanthracen-2-(9H)-ylidene]azetidinium, inner salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₃H₃₁N₃O₆Si
Batch Molecular Weight: 593.71
Physical Appearance: Yellow/green solid
Solubility: DMSO to 5 mM
 DMF to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98% purity
¹H 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:

Fluorescent dye; supplied as an NHS ester for coupling to primary amine groups. NHS ester can be converted to relevant substrate for use in self-labeling tag systems, e.g. HaloTag[®] and SNAP-tag[®]. Suitable for confocal fluorescent imaging, super resolution microscopy (SRM) techniques such as dSTORM (live and fixed cells), STED and PAINT imaging. Can be multiplexed for two colour imaging with Janelia Fluor[®] 549 SE (Cat. No. 6147). Cell permeable. Excitation maximum = 646 nm; emission maximum = 664 nm. Quantum yield = 0.54, Max. extinction coefficient = 152,000 M⁻¹cm⁻¹ (measured in ethanol plus 0.1% TFA); A280 correction factor is 0... Please see product datasheet on www.tocris.com for full description.

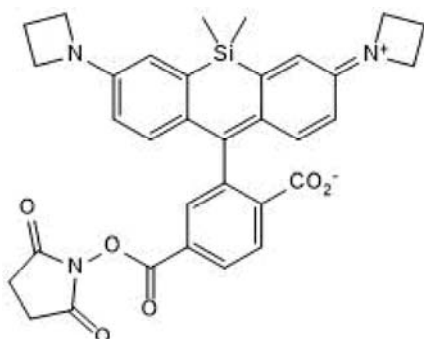
Physical and Chemical Properties:

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References:

Legant et al (2016) High-density three-dimensional localization microscopy across large volumes. *Nat.Methods* **13** 359. PMID: 26950745.

Li et al (2016) Real-time imaging of Huntingtin aggregates diverting target search and gene transcription. *Elife* **5** e17056. PMID: 27484239.

Schmidt et al (2016) Live cell imaging reveals the dynamics of telomerase recruitment to telomeres. *Cell* **166** 1188. PMID: 27523609.

Deng et al (2015) CASFISH: CRISPR/Cas9-mediated in situ labeling of genomic loci in fixed cells. *Proc.Natl.Acad.Sci.USA.* **112** 11870. PMID: 26324940.

Grimm et al (2015) A general method to improve fluorophores for live-cell and single-molecule microscopy. *Nat.Methods* **12** 244. PMID: 25599551.

Ticau et al (2015) Single-molecule studies of origin licensing reveal mechanisms ensuring bidirectional helicase loading. *Cell* **161** 513. PMID: 25892223.

Hong et al (2009) Phosphorylation of the RNA polymerase II C-terminal domain by TFIIF kinase is not essential for transcription of *Saccharomyces cerevisiae* *Genome Biol.* **10** 4276. PMID: 19660497

Storage: Store at -20°C. This product is packaged under an inert atmosphere.

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 5 mM

DMF to 50 mM

CAUTION - This product is chemically unstable in the presence of Trifluoroacetic acid (TFA).

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. Our standard recommendations are:

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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