

# Certificate of Analysis

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**Product Name:** PA Janelia Fluor® 646, NHS ester

**Catalog No.:** 6150

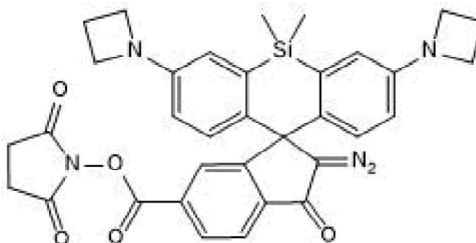
**Batch No.:** 4

**CAS Number:** 2093120-32-0

**IUPAC Name:** 2,5-Dioxo-1-pyrrolidinyl 3,7-di-1-azetidiny-2'-diazo-5,5-dimethyl-2',3'-dihydro-5H-3'-oxospiro[dibenzo[b,e]silole-10,1'-indene]-6'-carboxylate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>34</sub>H<sub>31</sub>N<sub>5</sub>O<sub>5</sub>Si  
**Batch Molecular Weight:** 617.74  
**Physical Appearance:** Dark orange solid  
**Solubility:** DMSO to 20 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.0% purity at 226 nm  
**<sup>1</sup>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: PA Janelia Fluor® 646, NHS ester is a photoactivatable fluorescent dye; supplied with an NHS ester reactive group for the labeling of primary amines. Suitable for live and fixed cell imaging. Application: Suitable for single molecule tracking and super resolution microscopy in live cells, specifically sptPALM (live cells) and PALM (fixed cells) techniques. Properties and Photophysical Data: Non-fluorescent until activated at 405 nm. NHS ester can be converted to relevant substrate for use in self-labeling tag systems, e.g. HaloTag® and SNAP-tag®. Can be multiplexed with PA Janelia Fluor® 549, NHS ester (Cat.... Please see product specific page on www.tocris.com for full description.

#### Physical and Chemical Properties:

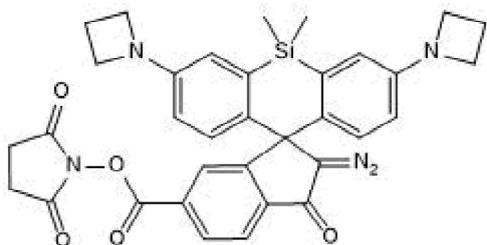
Batch Molecular Formula: C<sub>34</sub>H<sub>31</sub>N<sub>5</sub>O<sub>5</sub>Si

Batch Molecular Weight: 617.74

Physical Appearance: Dark orange solid

**Minimum Purity:** ≥90%

#### Batch Molecular Structure:



#### References:

**Grimm et al** (2016) Bright photoactivatable fluorophores for single-molecule imaging. *Nat.Methods* **13** 985. PMID: 27776112.

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

**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 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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