

**Product Name:** JFX 554, Maleimide

**Catalog No.:** 8160

**Batch No.:** 1

**IUPAC Name:** 4-((2-(2,5-Dioxo-2,5-dihydro-1H-pyrrol-1-yl)ethyl)carbamoyl)-2-(3-(pyrrolidin-1-ium-1-ylidene-d<sub>8</sub>)-6-(pyrrolidin-1-yl-d<sub>8</sub>)-3H-xanthen-9-yl)benzoate trifluoroacetate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

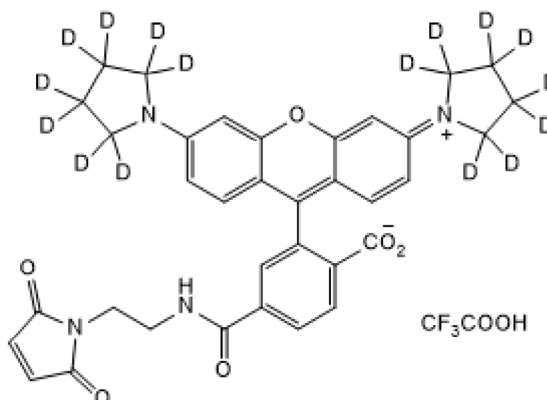
**Batch Molecular Formula:** C<sub>35</sub>H<sub>16</sub>D<sub>16</sub>N<sub>4</sub>O<sub>6</sub>.CF<sub>3</sub>CO<sub>2</sub>H

**Batch Molecular Weight:** 734.78

**Physical Appearance:** Purple lyophilised film

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 92.2% purity at 560 nm

**Mass Spectrum:** Consistent with structure

**UV Spectrum:** Consistent with structure

**λ<sub>max</sub>:** 559 nm (Diphenylcarbazide Solution)

**λ<sub>ex</sub>:** 559 nm (Diphenylcarbazide Solution)

**λ<sub>em</sub>:** 581 nm (Diphenylcarbazide Solution)

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

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**Description:**

Key Information: JFX™ 554, Maleimide is a yellow fluorescent deuterated Janelia Fluor® dye; supplied with a Maleimide reactive group for conjugation (thiol reactivity). Suitable for live cell imaging. Application: Suitable for confocal microscopy, super-resolution microscopy (SRM) techniques including dSTORM (in both live and fixed cells) and STED. Cell permeable. Properties and Photophysical Data: JFX™ 554, Maleimide shows enhanced brightness, photostability and chromostability. Maleimide can be converted to relevant substrate for use in self-labeling tag systems, e.g. HaloTag® and SNAP-tag®. Excitation and emissio... Please see product specific page on [www.tocris.com](http://www.tocris.com) for full description.

**Physical and Chemical Properties:**

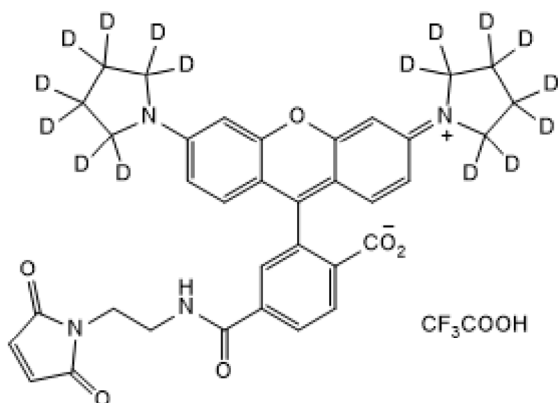
Batch Molecular Formula: C<sub>35</sub>H<sub>16</sub>D<sub>16</sub>N<sub>4</sub>O<sub>6</sub>.CF<sub>3</sub>CO<sub>2</sub>H

Batch Molecular Weight: 734.78

Physical Appearance: Purple lyophilised film

**Minimum Purity:** ≥90%

**Batch Molecular Structure:**



**References:**

Grimm *et al* (2021) A general method to improve fluorophores using deuterated auxochromes. JACS **1** 690. PMID: 34056637.

**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.

**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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