

Certificate of Analysis

www.tocris.com

Product Name: IRDye® 680RD, Maleimide

Catalog No.: 8877

Batch No.: 1

CAS Number: 1373919-90-4

IUPAC Name: Sodium (Z)-2-((2Z,4E)-5-(5-Chloro-3,3-dimethyl-7-(3-sulfonatopropyl)-3H-pyrrolo[2,3-b]pyridin-7-ium-2-yl)-3-(3-((2-(2,5-dioxo-2,5-dihydro-1H-pyrrol-1-yl)ethyl)amino)-3-oxopropyl)phenyl)penta-2,4-dien-1-ylidene)-3,3-dimethyl-1-(3-sulfonatopropyl)indoline-5-sulfonate

1. PHYSICAL AND CHEMICAL PROPERTIES

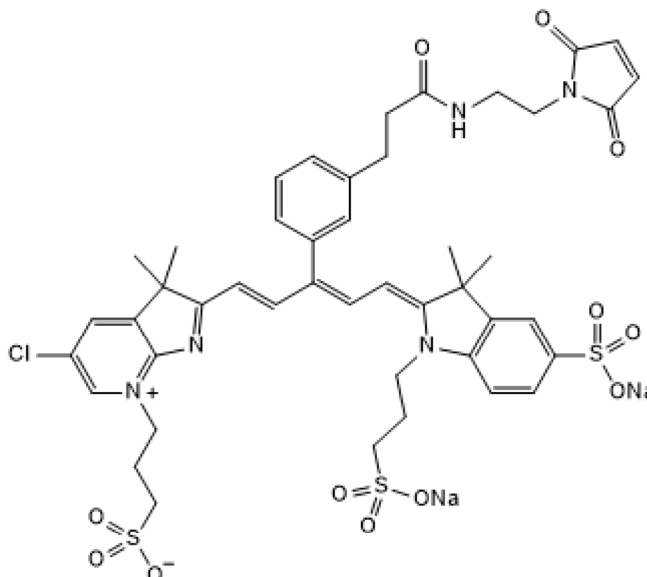
Batch Molecular Formula: C₄₅H₄₈ClN₅Na₂O₁₂S₃

Batch Molecular Weight: 1028.51

Physical Appearance: Dark purple solid

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97% purity

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 670 nm (0.01M PBS pH 7.4)

λ_{ex}: 672 nm (0.01M PBS pH 7.4)

λ_{em}: 698 nm (0.01M PBS pH 7.4)

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

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Description:

Key information: IRDye® 680RD, Maleimide is a near-infrared (NIR) fluorescent dye, supplied with a maleimide reactive group for conjugation (thiol reactivity). Application: Fluorescence microscopy. Properties and Photophysical Data: Excitation and emission maxima (λ) are 680 nm and 694 nm, respectively. Please see the product protocol for further information and a guide to protein/antibody labeling. It is recommended to dissolve dye in water or DMSO (10 - 20 mg/mL) Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

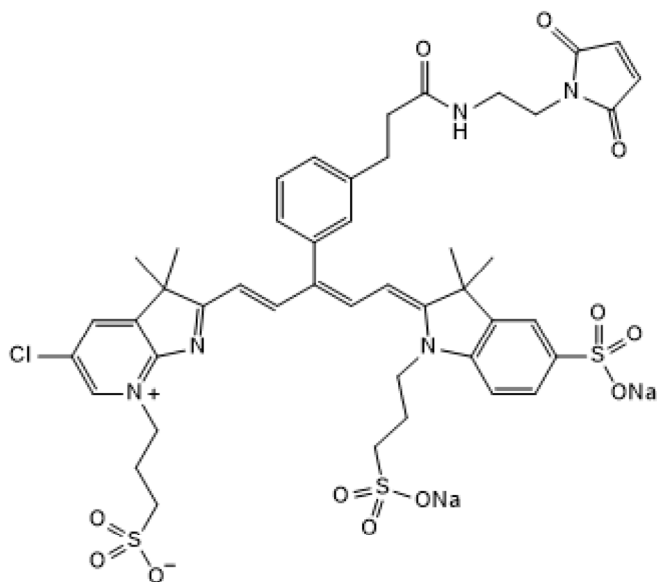
Batch Molecular Formula: C₄₅H₄₈ClN₅Na₂O₁₂S₃

Batch Molecular Weight: 1028.51

Physical Appearance: Dark purple solid

Minimum Purity: ≥80%

Batch Molecular Structure:



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.

References:

Sestito et al (2023) Lymphatic-draining nanoparticles deliver Bay K8644 payload to lymphatic vessels and enhance their pumping function. *Sci.Adv.* **9** eabq0435. PMID: 36827374.

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