

Product Name: TFX 488, SE

Catalog No.: 6619

Batch No.: 1

CAS Number: 222164-96-7

IUPAC Name: 3,6-Diamino-9-[2-carboxy-4(5)-[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]-4,5-disulfoxanthylum bislithium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅H₁₅N₃O₁₃S₂Li₂

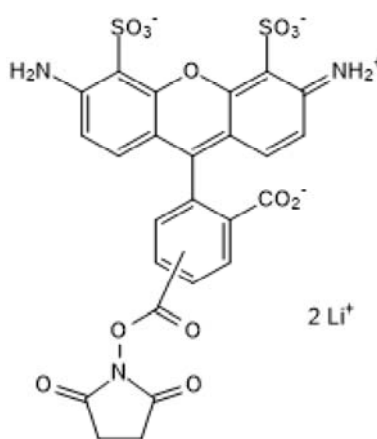
Batch Molecular Weight: 643.41

Physical Appearance: Orange solid

Solubility: Soluble in DMSO

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 79.6% purity

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 494 nm (pH 7 buffer)

λ_{em}: 518 nm (pH 7 buffer)

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

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Description:

Amine reactive green fluorescent dye. Insensitive to pH in the range 4 - 10. Forms bright and photostable conjugates with proteins and antibodies. Suitable for use in flow cytometry, two-photon excitation microscopy (TPE), and super resolution microscopy techniques, such as dSTORM, SIM and STED. Excitation maximum = 495 nm; emission maximum = 515 nm; extinction coefficient = 73,000 M⁻¹cm⁻¹; quantum yield = 0.92.

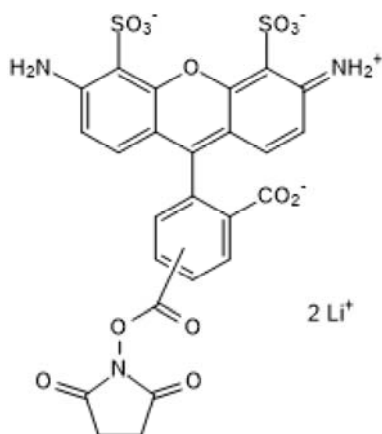
Physical and Chemical Properties:

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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:

Soluble in DMSO

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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.

References:

Rossi et al (2012) Super-resolution imaging of aquaporin-4 orthogonal arrays of particles in cell membranes. *J Cell Sci.* **125** 4405. PMID: 22718347.

Burnette et al (2011) Bleaching/blinking assisted localization microscopy for superresolution imaging using standard fluorescent molecules. *Proc.Natl.Acad.Sci.USA.* **108** 21081. PMID: 22167805.

van de Linde et al (2011) Direct stochastic optical reconstruction microscopy with standard fluorescent probes. *Nat.Protoc.* **6** 991. PMID: 21720313.

Iwata et al (2005) Increased susceptibility of cytoplasmic over nuclear polyglutamine aggregates to autophagic degradation. *Proc.Natl.Acad.Sci.USA.* **102** 13135. PMID: 16141322.

Panchuk-Voloshina et al (1999) Alexa dyes, a series of new fluorescent dyes that yield exceptionally bright, photostable conjugates. *J.Histochem.Cytochem.* **47** 1179. PMID: 10449539.

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