# Certificate of Analysis



**Product Name:** **NIR Dye s775z, NHS** **Catalog No.: 7626** **Batch No.: 2**

IUPAC Name: 2-((1*E*,3*Z*,5*E*)-4-(2,6-bis((4-(2,5,8,11-tetraoxadodecyl)-1*H*-1,2,3-triazol-1-yl)methyl)-4-(((2,5-dioxopyrrolidin-1-yl)oxy) carbonyl)phenyl)-7-((*E*)-3,3-dimethyl-5-sulfonato-1-(3-(trimethylammonio)propyl)indolin-2-ylidene)hepta-1,3,5-trien-1-yl)-3,3-dimethyl-1-(3-(trimethylammonio)propyl)-3*H*-indol-1-ium-5-sulfonate chloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

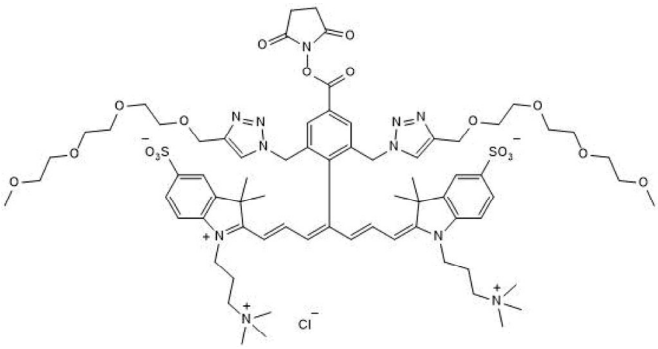
**Batch Molecular Formula:** $C_{72}H_{100}ClN_{11}O_{18}S_2$

**Batch Molecular Weight:** 1507.22

**Physical Appearance:** Dark green solid

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 93.7% purity at 780 nm

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**UV Spectrum:** Consistent with structure

**$\lambda_{max}$:** 775 nm (Water)

**$\lambda_{ex}$:** 775 nm (Water)

**$\lambda_{em}$:** 796 nm (Water)

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

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**Product Name:** **NIR Dye s775z, NHS** **Catalog No.: 7626** **Batch No.: 2**

IUPAC Name: 2-((1*E*,3*Z*,5*E*)-4-(2,6-bis((4-(2,5,8,11-tetraoxadodecyl)-1*H*-1,2,3-triazol-1-yl)methyl)-4-(((2,5-dioxopyrrolidin-1-yl)oxy) carbonyl)phenyl)-7-((*E*)-3,3-dimethyl-5-sulfonato-1-(3-(trimethylammonio)propyl)indolin-2-ylidene)hepta-1,3,5-trien-1-yl)-3,3-dimethyl-1-(3-(trimethylammonio)propyl)-3*H*-indol-1-ium-5-sulfonate chloride

**Description:**

Key information: NIR Dye s775z, NHS is a near-infrared (NIR) fluorescent dye supplied with an NHS ester reactive group for the labeling of primary amines. Suitable for in vivo imaging. Application: Fluorescence microscopy, in vivo imaging. Properties and Photophysical Data: When conjugated to antibodies, NIR Dye s775z, NHS is substantially brighter and more photostable than competitor dyes. It retains excellent target specificity, even when the degree of labeling (DOL) is very high. Excitation and emission maxima (λ) are 775 nm and 795 nm, respectively; quantum yield = 0.09; extinction coefficient = 201,000 $M^{-1}cm^{-1}$; A280 correction fa... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

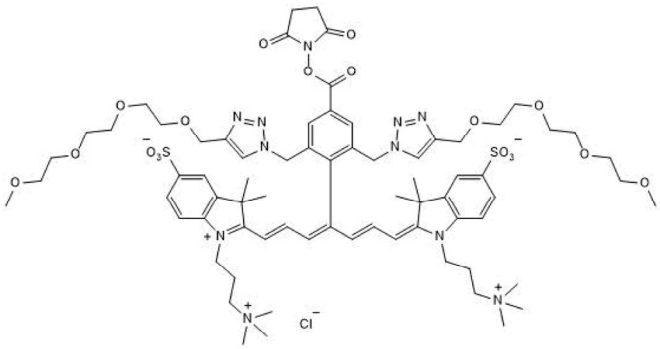
Batch Molecular Formula: $C_{72}H_{100}ClN_{11}O_{18}S_2$

Batch Molecular Weight: 1507.22

Physical Appearance: Dark green solid

**Minimum Purity:** ≥90%

**Batch Molecular Structure:**



**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.

**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 University of Notre Dame

**References:**

**Schreiber** *et al* (2021) High-performance near-infrared fluorescent secondary antibodies for immunofluorescence. Anal.Chem. ***93*** 3643. PMID: 33566567.



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