Certificate of Analysis

Product Name: **DiD perchlorate** **Catalog No.: 5702** **Batch No.: 7**

CAS Number: 127274-91-3

IUPAC Name: 2-[5-(1,3-Dihydro-3,3-dimethyl-1-octadecyl-2*H*-indol-2-ylidene)-1,3-pentadien-1-yl]-3,3-dimethyl-1-octadecyl-3*H*-indolium perchlorate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{61}H_{99}ClN_2O_4$

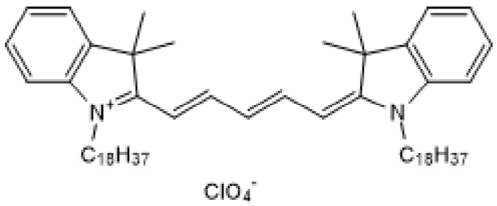
Batch Molecular Weight: 959.9

Physical Appearance: Dark blue solid

Solubility: Soluble in DMSO

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.9% purity at 254 nm

λ_{ex}: 646 nm

λ_{em}: 663 nm

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Description:

Key information: DiD perchlorate is a lipophilic red fluorescent probe. Used for: labeling membranes and other hydrophobic structures. Suitable to label organelles, liposomes, viruses, lipoproteins and hematopoietic stem cells (HSCs). Suitable for live cell imaging. Application: fluorescent microscopy, flow cytometry. Properties and Photophysical Data: DiD perchlorate is a Cy5 dye used as a lipophilic fluorescent reagent. Suitable for multicolor imaging. Excitation and emission maxima (λ) are 644 nm and 665 nm, respectively.

Physical and Chemical Properties:

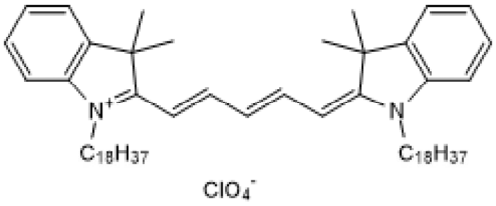
Batch Molecular Formula: $C_{61}H_{99}ClN_2O_4$

Batch Molecular Weight: 959.9

Physical Appearance: Dark blue solid

Minimum Purity: ≥95%

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.

Solubility & Usage Info:

Soluble in DMSO

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:

Khorshed *et al* (2015) Automated identification and localization of hematopoietic stem cells in 3D intravital microscopy data. Stem Cell Reports ***5*** 139. PMID: 26120058.

Lo Celso *et al* (2009) Live-animal tracking of individual haematopoietic stem/progenitor cells in their niche. Nature ***457*** 92. PMID: 19052546.

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