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TOCRIS

Print Date: Jul 23rd 2025

Certificate of Analysis

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Product Name: **SCOTfluor glucose probe 510** **Catalog No.: 7447** **Batch No.: 1**

CAS Number: 2490298-72-9

IUPAC Name: 2-Deoxy-2-[(7-nitro-2,1,3-benzoselenadiazol-4-yl)amino]-D-glucose

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_{14}N_4O_7Se$

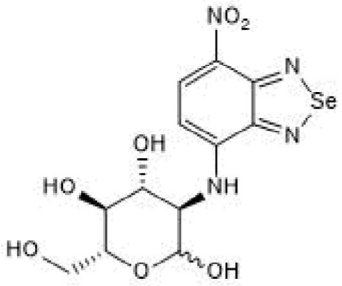
Batch Molecular Weight: 405.23

Physical Appearance: Red solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity at 493 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

λ_{max}: 490 nm (MeOH)

λ_{ex}: 490 nm (MeOH)

λ_{em}: 602 nm (MeOH)

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Description:

SCOTfluor glucose probe 510 is a fluorescent probe for visualizing glucose uptake in vivo. It can be multiplexed with BFP and GFP. Excitation and emission maxima (λ) are 490 and 605 nm, respectively.

Physical and Chemical Properties:

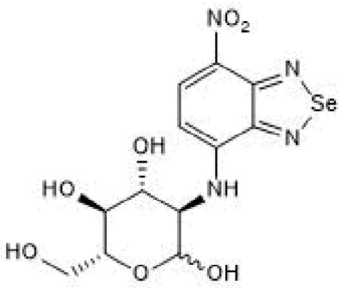
Batch Molecular Formula: $C_{12}H_{14}N_4O_7Se$

Batch Molecular Weight: 405.23

Physical Appearance: Red solid

Minimum Purity: ≥98%

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:

DMSO to 10 mM

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 Edinburgh

References:

Benson *et al* (2021) Photoactivatable metabolic warheads enable precise and safe ablation of target cells *in vivo*. Nat.Commun. ***12*** 2369. PMID: 33888691.

Benson *et al* (2019) SCOTfluors: small, conjugatable, orthogonal, and tunable fluorophores for *in vivo* imaging of cell metabolism. Angew.Chem.Int.Ed.Engl. ***58*** 6911. PMID: 30924239.

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