

Product Name: Se-NADA

Catalog No.: 7449

Batch No.: 1

CAS Number: 2571574-70-2

IUPAC Name: 3-((7-Nitro-2,1,3-benzoselenadiazol-4-yl)amino)-D-alanine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₉N₅O₄Se.HCl

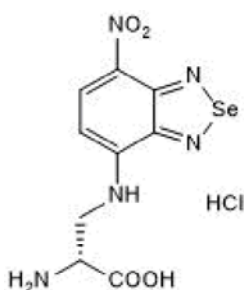
Batch Molecular Weight: 366.62

Physical Appearance: Orange solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity at 483 nm

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 475 nm (Methanol)

λ_{em}: 585 nm (Methanol)

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

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Description:

Se-NADA is an orange fluorescent benzoselenadiazole D-amino acid (FDAA) for imaging bacteria. It is covalently incorporated into peptidoglycans in the cell walls of live bacteria. It also acts as a photosensitizer, bringing about bacterial cell death on exposure to visible light. Se-NADA is effective against both Gram-positive and Gram-negative bacteria. Ex/Em = 470/590 nm.

Physical and Chemical Properties:

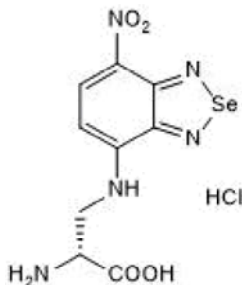
Batch Molecular Formula: C₉H₉N₅O₄Se.HCl

Batch Molecular Weight: 366.62

Physical Appearance: Orange solid

Minimum Purity: ≥95%

Batch Molecular Structure:



References:

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

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. 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.

Licensing Information:

Sold under license from the University of Edinburgh

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info@bio-techne.com

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North America

Tel: (800) 343 7475

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Europe Middle East Africa

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