TOCRIS
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Print Date: Jan 18th 2023

Certificate of Analysis

www.tocris.com

Product Name: **NADA-green** **Catalog No.: 6648** **Batch No.: 2**

CAS Number: 2253733-11-6

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_9H_9N_5O_5.HCl.1¼H_2O$

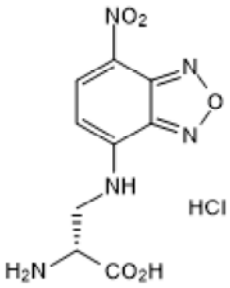
Batch Molecular Weight: 326.18

Physical Appearance: Orange solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 95.0% purity at 461 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 470 nm (PBS pH 7.4)

λ_{ex}: 463 nm (PBS pH 7.4)

λ_{em}: 540 nm (PBS pH 7.4)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	33.14	3.86	21.47
Found	33.53	3.59	21.02

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Description:

NADA-green is a fluorescent D-amino acid. Suitable for labeling peptidoglycans in live bacteria. Incorporated into bacterial cell walls during synthesis. Results in strong peripheral and septal labeling of taxonomically diverse bacterial cell populations without affecting growth rate. Excitation/emission λ ~450/555 nm. Please note that the spectral data is solvent dependant

Physical and Chemical Properties:

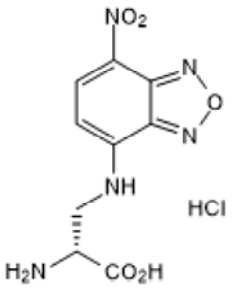
Batch Molecular Formula: $C_9H_9N_5O_5.HCl.1¼H_2O$

Batch Molecular Weight: 326.18

Physical Appearance: Orange 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:

DMSO to 100 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.

References:

Kuru *et al* (2014) Synthesis of fluorescent D-amino acids and their use for probing peptidoglycan synthesis and bacterial growth *in situ*. Nat.Protoc. ***10*** 33. PMID: 25474031.

Kuru *et al* (2012) *In situ* probing of newly synthesized peptidoglycan in live bacteria with fluorescent D-amino acids. Angew.Chem.Int.Ed. ***51*** 12519. PMID: 23055266.

Ladokhin *et al* (2002) Determining the Membrane Topology of Proteins: Insertion Pathway of a Transmembrane Helix of Annexin 12 Biochemistry ***41*** 13617. PMID: 12427023.