

Product Name: ALDH Detection Reagent - BAAA-DA

Catalog No.: 7556

Batch No.: 2

CAS Number: 247069-93-8

IUPAC Name: (7-4)-[N-(2,2-Diethoxyethyl)-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-κN)methyl]-1H-pyrrole-2-propanamidato-κN¹] difluoroboron

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₈BF₂N₃O₃.

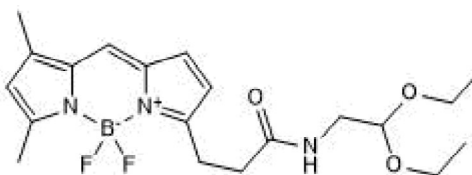
Batch Molecular Weight: 407.27

Physical Appearance: Orange solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity at 502 nm

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 505 nm (Acetone)

λ_{ex}: 505 nm (Acetone)

λ_{em}: 513 nm (Acetone)

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 58.98 | 6.93 | 10.32 |
| Found | 59.7 | 6.99 | 10.3 |

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

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Description:

ALDH Detection Reagent - BAAA-DA is a fluorescent substrate of aldehyde dehydrogenase (ALDH). BAAA is converted by intracellular ALDH from aminoacetaldehyde (BAAA) into carboxylate ion amino acetate (BAA) and used to identify cells with high ALDH activity. Can be used in flow cytometry to sort cancer stem cells with high ALDH levels, and to isolate human hematopoietic progenitor cells. Can be used with efflux inhibitors such as Verapamil (Cat. No. 0654), Probenecid (Cat. No. 4107) or 2-deoxy-D-glucose (Cat. No. 4515) to block multi-drug resistance efflux. Application: flow cytometry, fluorescent activated cell sorting. Excitation and emissio... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

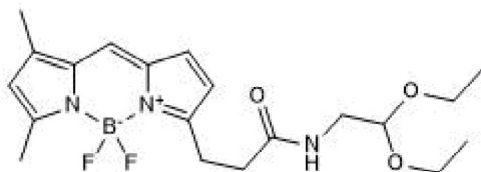
Batch Molecular Formula: C₂₀H₂₈BF₂N₃O₃.

Batch Molecular Weight: 407.27

Physical Appearance: Orange solid

Minimum Purity: ≥95%

Batch Molecular Structure:



References:

Storms et al (1999) Isolation of primitive human hematopoietic progenitors on the basis of aldehyde dehydrogenase activity. Proc.Natl.Acad.Sci.U.S.A. **96** 9118. PMID: 10430905.

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

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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.

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