

Product Name: YADA

Catalog No.: 6650

Batch No.: 3

CAS Number: 1471982-33-8

IUPAC Name: (αR)- $\alpha,6$ -Diamino-1,3-dioxo-5,8-disulfo-1*H*-benz[de]isoquinoline-2(3*H*)-propanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₃N₃O₁₀S₂·4¼H₂O

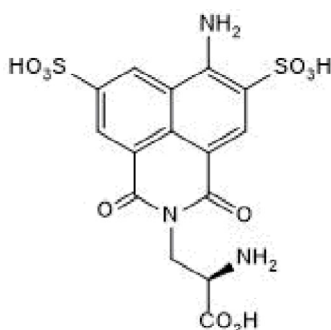
Batch Molecular Weight: 535.96

Physical Appearance: Orange solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity at 280 nm

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max} : 425 nm (RPM-00056)

λ_{ex} : 427 nm (RPM-00056)

λ_{em} : 533 nm (RPM-00056)

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 33.61 4.04 7.84

Found 33.01 3.82 7.45

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

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Description:

YADA is a green-yellow lucifer yellow-based fluorescent D-amino acid. Suitable for labeling peptidoglycans in live bacteria. Incorporated into bacterial cell walls during synthesis. Exhibits large Stokes shift and wider emission spectra than other FDAAs, allowing excitation via a violet light source and detection with a green filter. Displays good water solubility, photostability and thermostability. Excitation/emission λ ~426/535 nm.

Physical and Chemical Properties:

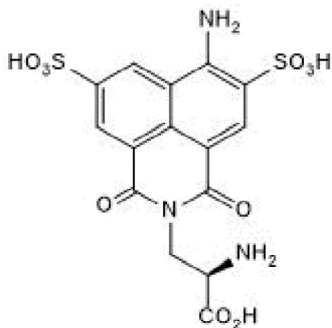
Batch Molecular Formula: C₁₅H₁₃N₃O₁₀S₂·4 $\frac{1}{4}$ H₂O

Batch Molecular Weight: 535.96

Physical Appearance: Orange solid

Minimum Purity: \geq 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. *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:

Hsu *et al* (2017) Full color palette of fluorescent d-amino acids for in situ labeling of bacterial cell walls. *Chem.Sci.* **8** 6313. PMID: 28989665.

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