

Certificate of Analysis

Print Date: Jul 25th 2022

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Product Name: YADA Catalog No.: 6650 Batch No.: 1

CAS Number: 1471982-33-8

IUPAC Name: (αR) - α ,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: $C_{15}H_{13}N_3O_{10}S_2.4\frac{1}{4}H_2O$

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

 λ_{em} :

HPLC: Shows 94.8% purity

 1 H NMR:Consistent with structureMass Spectrum:Consistent with structureUV Spectrum:Consistent with structure λ_{max} :425 nm (PBS buffer pH 7.4) λ_{ex} :425 nm (PBS buffer pH 7.4)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 33.61 4.04 7.84 Found 33.38 4.14 7.83

531 nm (PBS buffer pH 7.4)

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



Product Information

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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: C₁₅H₁₃N₃O₁₀S₂.4½H₂O

Batch Molecular Weight: 535.96 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:

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.