



Certificate of Analysis

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Product Name: RADA Catalog No.: 6649 Batch No.: 3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{28}H_{28}N_4O_6$ Batch Molecular Weight:516.55

Physical Appearance: Dark purple solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C

Batch Molecular Structure:

$$H_2N$$
 CO_2H

2. ANALYTICAL DATA

HPLC: Shows 98.1% purity at 210 nm

 1 H NMR:Consistent with structureMass Spectrum:Consistent with structureUV Spectrum:Consistent with structure λ_{max} :552 nm (0.01M PBS pH 7.4) λ_{ex} :555 nm (0.01M PBS pH 7.4) λ_{em} :580 nm (0.01M PBS pH 7.4)

Net product content: 66%

Product Information

Print Date: Dec 11th 2023

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Product Name: RADA Catalog No.: 6649 3

Description:

RADA is an orange-red TAMRA-based fluorescent D-amino acid. Suitable for labeling peptidoglycans in live bacteria. Incorporated into bacterial cell walls during synthesis. Suitable for prolonged exposure due to red-shift photophysical properties. Suitable for dSTORM and reSTORM. Displays good water solubility, photostability and thermostability. Excitation/emission λ ~554/580 nm. This product is supplied as a TFA salt, the stoichiometry of which is batch dependant. Please refer to the Certificate of Analysis to obtain the batch specific Net Product Content.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₈H₂₈N₄O₆ Batch Molecular Weight: 516.55 Physical Appearance: Dark purple solid

Minimum Purity: ≥98%

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:

García-Heredia *et al* (2018) Peptidoglycan precursor synthesis along the sidewall of pole-growing mycobacteria. Elife **7** pii: e37243.. PMID: 30198841.

Fenton *et al* (2017) Erratum: CozE is a member of the MreCD complex that directs cell elongation in *Streptococcus pneumoniae*. Nat.Microbiol. **2** 17011. PMID: 28112724 .

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.

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