

Certificate of Analysis

Print Date: Oct 7th 2024

www.tocris.com

Product Name: RNA Imaging Probe 1c Catalog No.: 8813 Batch No.: 1

IUPAC Name: 3-[(E)-2-(1-Methylpyridin-1-ium-4-yl)ethenyl]indolizine iodide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{15}IN_2$ Batch Molecular Weight: 362.21

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

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 53.06 4.17 7.73
Found 52.98 4.11 7.72



Product Information

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IUPAC Name: 3-[(*E*)-2-(1-Methylpyridin-1-ium-4-yl)ethenyl]indolizine iodide

Description:

RNA Imaging Probe 1c is a fluorogenic RNA imaging probe. RNA Imaging Probe 1c displays high membrane permeability, strong fluorogenic responses upon binding RNA, compatibility with fluorescence lifetime imaging microscopy (FLIM), low cytotoxicity, and excellent photostability. Excitation and emission maxima (λ) are 556 nm and 608 nm, respectively; quantum yield = 0.49; extinction coefficient = 27,500 M-¹cm-¹. Suitable for life cell imaging.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₆H₁₅IN₂ Batch Molecular Weight: 362.21 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 20 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.

Licensing Information:

Sold under license from the University of Southern California.

References:

Kim et al (2023) Development of highly fluorogenic styrene probes for visualizing RNA in live cells. ACS Chem.Biol. 18 1523. PMID: 37200527.

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