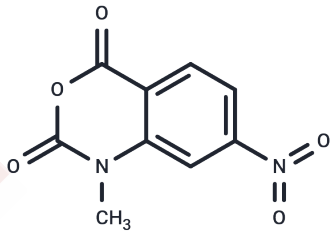
Data Sheet (Cat.No.T13995)

TargetMol

1-Methyl-7-nitroisatoic anhydride

Chemical Properties



CAS No. : 73043-80-8

Formula: C9H6N2O5

Molecular Weight: 222.15

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	1-Methyl-7-nitroisatoic anhydride (1M7) is a reagent. It detects local nucleotide flexibility, for probing 2'-hydroxyl reactivity.
Targets(IC50)	Others
In vitro	1-Methyl-7-nitroisatoic anhydride RNA shape and structure processing experiment a. Preparation of solutions and samples: 1. Solution preparation: 1.1 Mother solution preparation: Prepare a certain concentration of 1M7 mother solution, store it at -20℃ or -80℃ in the dark after aliquoting. 1.2 Working solution preparation: Select the appropriate working solution concentration according to the experimental requirements, such as diluting it into a 1M7 working solution with a concentration of 80 mM, and try to prepare it before use. 2. Preparation of sample RNA: RNA should be dissolved in RNase-free water or 0.5× TE buffer pH 8.0 at a concentration of 5 μM, and aliquot and store at –20 °C. b. Operation steps: 1. 1 μL 80 mM 1M7 + 9 μL RNA, mix quickly by pipetting and incubate at 37 °C for 3 minutes. The incubation time of the 1M7 reagent depends on the temperature and pH of the system being studied. Incubation time will be longer at lower temperatures and more acidic pH values. 2. Ethanol precipitation. Add 90 μL RNase-free water, 4 μL 5 M NaCl, 1 μL glycogen (20 mg/mL), and 240 μL ethanol to the mixture. Stir well. Incubate at –80°C for 30 minutes. 3. Centrifuge at maximum speed in a microcentrifuge at 4°C for 30 minutes before subsequent primer extension experiments. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 50 mg/mL (225.07 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.5015 mL	22.5073 mL	45.0146 mL
5 mM	0.9003 mL	4.5015 mL	9.0029 mL
10 mM	0.4501 mL	2.2507 mL	4.5015 mL
50 mM	0.090 mL	0.4501 mL	0.9003 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Rice GM, et al. SHAPE analysis of small RNAs and riboswitches. Methods Enzymol. 2014;549:165-87.