Data Sheet (Cat.No.T84403)

TargetMol

4-Thiouracil

Chemical Properties

CAS No. : 591-28-6

Formula: C4H4N2OS

Molecular Weight: 128.152

Storage: 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	4-Thiouracil is a photoactivatable probe designated for site-specific applications in detecting RNA structures and nucleic acid-nucleic acid contacts. Upon illumination with ultraviolet light exceeding 300 nm and in the presence of oxygen, it serves as an energy donor, facilitating the generation of singlet oxygen through triplet-triplet energy transfer. This process enables the highly reactive oxygen species to interact with 4-thiouracil, leading to the formation of uracil and uracil-6-sulfonate; the latter exhibits fluorescence around a wavelength of approximately 390 nm. Additionally, 4-Thiouracil functions as a substrate for T. gondii uracil phosphoribosyltransferase, allowing the synthesis of 4-thiouridine monophosphate for subsequent integration into RNA.
Targets(IC50)	Others,ROS

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.8034 mL	39.0168 mL	78.0336 mL
5 mM	1.5607 mL	7.8034 mL	15.6067 mL
10 mM	0.7803 mL	3.9017 mL	7.8034 mL
50 mM	0.1561 mL	0.7803 mL	1.5607 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.

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