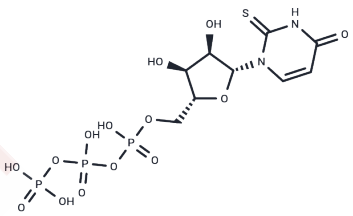
Data Sheet (Cat.No.T22503)

TargetMol

2-Thio-UTP

Chemical Properties



CAS No. : 35763-29-2

Formula: C9H15N2O14P3S

Molecular Weight: 500.21

Storage: Keep away from moisture,Store at low temperature
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	2-Thio-UTP is a selective P2Y2 receptor (purinergic receptor) agonist (EC50 = 50 nM) capable of inhibiting calcification potential, α-smooth muscle actin expression, and pro-fibrotic gene expression in valvular interstitial cells (VICs). It may be employed in studies of calcific aortic valve stenosis (CAVS).
Targets(IC50)	Others,P2Y Receptor
In vitro	Treatment of valve interstitial cells with 2-Thio-UTP (10 μM) for 5 days effectively reduced the mRNA expression levels of ACTA2, TGFB1, TGFB2, COL1A1, and COL3A1, while also decreasing the protein expression level of αSMA [2].

Solubility Information

Solubility	H2O: <10 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9992 mL	9.9958 mL	19.9916 mL
5 mM	0.3998 mL	1.9992 mL	3.9983 mL
10 mM	0.1999 mL	0.9996 mL	1.9992 mL
50 mM	0.040 mL	0.1999 mL	0.3998 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

El-Tayeb A, et al. Synthesis and structure-activity relationships of uracil nucleotide derivatives and analogues as agonists at human P2Y2, P2Y4, and P2Y6 receptors. J Med Chem. 2006 Nov 30;49(24):7076-87.
Moschetta D, et al. Purinergic Receptor P2Y2 Stimulation Averts Aortic Valve Interstitial Cell Calcification and Myofibroblastic Activation. Biomedicines. 2022 Feb 16;10(2):457.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481