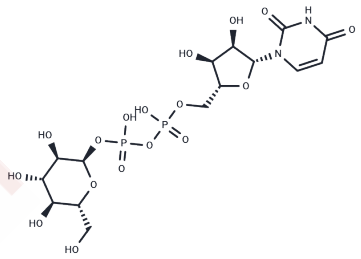
Data Sheet (Cat.No.T19599)

TargetMol

Uridine diphosphate glucose

Chemical Properties



CAS No. : 133-89-1

Formula: C15H24N2O17P2

Molecular Weight: 566.3

Storage: 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	Uridine diphosphate glucose (UDP-glucose) is a pyrimidine nucleotide sugar, serving as a precursor for oligosaccharides, polysaccharides, glycoproteins, and glycolipids containing glucose. It is a key intermediate in carbohydrate metabolism and participates in numerous enzymatic reactions, acting as a P2Y14 agonist.
Targets(IC50)	Endogenous Metabolite,P2Y Receptor
In vitro	**Method**: Neutrophils were treated with varying concentrations (0–100 μM) of Uridine diphosphate glucose and incubated for 24 hours. In some groups, PPTN was co-administered. Cell viability and apoptosis were then assessed. **Result**: Uridine diphosphate glucose treatment decreased neutrophil viability and increased apoptosis, effects that were attenuated by the addition of PPTN.[2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7658 mL	8.8292 mL	17.6585 mL
5 mM	0.3532 mL	1.7658 mL	3.5317 mL
10 mM	0.1766 mL	0.8829 mL	1.7658 mL
50 mM	0.0353 mL	0.1766 mL	0.3532 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

DietrichKeppler, et al. Uridine-5′-diphosphoglucose. Methods of Enzymatic Analysis (Second English Edition). 1974;4:2225-2228.

Li K, et al. Upregulation of P2Y14 receptor in neutrophils promotes inflammation after myocardial ischemia/reperfusion injury[J]. Life Sci. 2023 Aug 1;326:121805.

Cortes P, Dumler F, Levin NW. De novo pyrimidine nucleotide biosynthesis in isolated rat glomerul[J]i. Kidney Int. 1986 Jul;30(1):27-34.

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