

UDP-GalNAc disodium

Chemical Properties

CAS No. :	108320-87-2
Formula:	C ₁₇ H ₂₅ N ₃ Na ₂ O ₁₇ P ₂
Molecular Weight:	651.32
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	UDP-GalNAc disodium is a key sugar nucleotide and serves as the catalytic substrate of EpsC115 (a truncated mutant protein of extracellular polymeric substance (EPS) with amino acids 1-115 at the N-terminus). It is a universal glycosyl donor for various N-acetylgalactosaminyltransferases, mediating the transfer of GalNAc groups from nucleotide sugars to carbohydrate or polypeptide receptors and providing essential glycosyl precursors for various glycosylation modification reactions. At present, UDP-GalNAc disodium has been widely applied in mechanism research of colorectal cancer, breast cancer and other tumors.
Targets(IC50)	Endogenous Metabolite
In vitro	Methods: Using UDP-GalNAc disodium at a final concentration of 25 μM as the substrate, purified ppGalNAc-T2 and ppGalNAc-T3 proteins were applied to perform in vitro glycosylation assays. Results: UDP-GalNAc disodium at 25 μM can serve as a reaction substrate for the in vitro functional verification of glycosylation activity of ppGalNAc-T2 and ppGalNAc-T3 [3].

Solubility Information

Solubility	H ₂ O: 100 mg/mL (153.53 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5353 mL	7.6767 mL	15.3534 mL
5 mM	0.3071 mL	1.5353 mL	3.0707 mL
10 mM	0.1535 mL	0.7677 mL	1.5353 mL
50 mM	0.0307 mL	0.1535 mL	0.3071 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

- Kaundinya CR, et al. In vitro characterization of N-terminal truncated EpsC from *Bacillus subtilis* 168, a UDP-N-acetylglucosamine 4,6-dehydratase. *Arch Biochem Biophys*. 2018 Nov 1;657:78-88.
- Hang HC, et al. Probing glycosyltransferase activities with the Staudinger ligation. *J Am Chem Soc*. 2004 Jan 14;126(1):6-7.
- Song L, et al. Inhibitor of ppGalNAc-T3-mediated O-glycosylation blocks cancer cell invasiveness and lowers FGF23 levels. *Elife*. 2017 Mar 31;6:e24051.
- Kohsaki T, et al. Expression of UDP-GalNAc: polypeptide N-acetylgalactosaminyltransferase isozymes T1 and T2 in human colorectal cancer. *J Gastroenterol*. 2000;35(11):840-8.

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