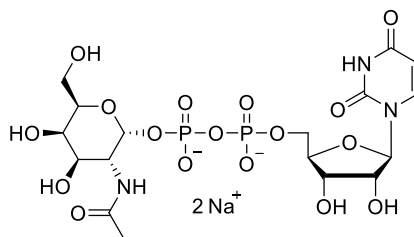


Technical Information about UDP-GalNAc

Update: May 08, 2023ss



Abbreviation: UDP-GalNAc

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₇ H ₂₇ N ₃ O ₁₇ P ₂ (free acid)	[108320-87-2]	607.4 (free acid)	λ _{max} 262 nm / ε 10000 / pH 7	U 027

Name: Uridine- 5'- diphospho- N- acetylgalactosamine, sodium salt

Description: UDP-GalNAc is a nucleotide sugar consisting of uridine - 5'- diphosphosphate (UDP) and phosphate-bound N-acetylgalactosamine, the latter being the N-acetylated form of galactosamine, a monosaccharide with six carbon atoms.

Properties: UDP-GalNAc is the essential donor substrate for eukaryotic and prokaryotic N-acetylgalactosaminyltransferases (GalNAcTs) involved in mucin, glycosphingolipid, and glycosaminoglycan synthesis. Polypeptide GalNAcTs have been utilized for the chemoenzymatic synthesis of mucin-derived O-glycopeptides and glycosphingolipids. Both are considered potential anti-cancer vaccines. Further application fields are the synthesis of chondroitin and the blood group antigen A.

Specification: Crystallized or lyophilized sodium salt. The free acid or other salt forms are available upon request. Please keep in mind that equal concentrations of the compound may look different in volume due to sensitivity of the lyophilized form to humidity. The compound can even contract to small volume droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ_{max}.

Purity: Usual analysis is > 99%, guaranteed purity is > 98% (HPLC / UV / 262 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: UDP-GalNAc has excellent solubility in water and aqueous buffers (≥ 20 mM, limits have not been determined). Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

Stability and Storage: UDP-GalNAc is sufficiently stable for shipment at room temperature. Upon receipt, we recommend that the compound should be stored in the freezer (-20° Celsius necessary, -70° Celsius recommended), for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Since UDP-GalNAc has multiple tasks in every organism, it is very likely that it will interfere with many cell regulation processes *in vivo*. However, due to the rather small quantities to work with, no health hazards have been reported. Nevertheless, please keep in mind, that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid skin contact or ingestion and allow only trained personnel to handle the product.

Our products are designed, developed and sold for research purposes only! They are intended for *in vitro* and nonhuman *in vivo* laboratory applications. Any other use requires approval of health authorities.

Not for drug, household or related uses!

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