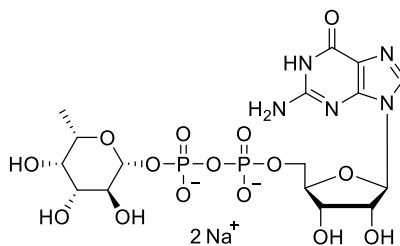


## Technical Information about GDP-Fuc

Update: May 08, 2023ss



**Abbreviation:** GDP-Fuc

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>16</sub> H <sub>25</sub> N <sub>5</sub> O <sub>15</sub> P <sub>2</sub> (free acid)	[15839-70-0]	589.4 (free acid)	λ <sub>max</sub> 253 nm / ε 13500 / pH 7	G 069

**Name:** Guanosine- 5'- diphospho- β- L- fucose, sodium salt

**Description:** GDP-Fuc is a nucleotide sugar consisting of guanosine- 5'- diphosphosphate (GDP) and phosphate-bound L- fucose, the latter being a deoxy sugar and a monosaccharide with six carbon atoms.

**Properties:** GDP-Fuc is the essential donor substrate for eukaryotic (FUT) and prokaryotic fucosyltransferases (FucTs) in the synthesis of glycoconjugates. FUTs and FucTs are utilized for *in vitro* glycoengineering of biopharmaceutical glycoproteins and cell surface glycans. Further application fields are the synthesis of human milk oligosaccharides and glycan epitopes such as Lewis and blood group antigens.

**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<sub>max</sub>.

**Purity:** Usual analysis is > 98%, guaranteed purity is > 95% (HPLC / UV / 253 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** GDP-Fuc has excellent solubility in water and aqueous buffers (≥ 40 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:** GDP-Fuc 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 GDP-Fuc 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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