

# PRODUCT INFORMATION



## UDP- $\alpha$ -D-Glucose (sodium salt hydrate)

Item No. 15602

**Formal Name:** uridine 5'-(trihydrogen diphosphate),  
P'- $\alpha$ -D-glucopyranosyl ester,  
disodium salt, hydrate

**Synonyms:** UDPG, UDP-Glucose,  
Uridine-5'-diphosphoglucose

**MF:** C<sub>15</sub>H<sub>22</sub>N<sub>2</sub>O<sub>17</sub>P<sub>2</sub> • 2Na [XH<sub>2</sub>O]

**FW:** 610.3

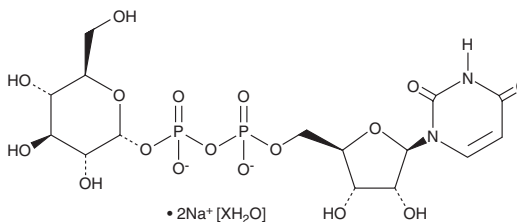
**Purity:**  $\geq$ 98%

**UV/Vis.:**  $\lambda_{\text{max}}$ : 262 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

UDP- $\alpha$ -D-Glucose (UDPG) (sodium salt hydrate) is supplied as a crystalline solid. Aqueous solutions of UDPG (sodium salt hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of UDPG (sodium salt hydrate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

UDPG is an endogenous nucleotide sugar involved in glycosyltransferase reactions in metabolism. It has been shown to bind the P2Y<sub>14</sub> receptor ( $EC_{50}$  = 0.35  $\mu$ M), an atypical P2Y receptor involved in the activation of dendritic cells and glial cells.<sup>1</sup> It can also bind to and activate GPR17, inducing oligodendrocyte differentiation at a maximal concentration of 100  $\mu$ M.<sup>2</sup>

### References

1. Jacobson, K.A., Ivanov, A.A., de Castro, S., *et al.* Development of selective agonists and antagonists of P2Y receptors. *Purinergic Signal*. **5(1)**, 75-89 (2009).
2. Lecca, D., Trincavelli, M.L., Gelosa, P., *et al.* The recently identified P2Y-like receptor GPR17 is a sensor of brain damage and a new target for brain repair. *PLoS One* **3(10)**, (2008).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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