

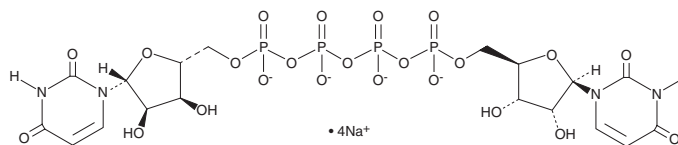
# PRODUCT INFORMATION



## Diquafosol (sodium salt)

Item No. 33971

**CAS Registry No.:** 211427-08-6  
**Formal Name:** uridine 5'-(pentahydrogen tetraphosphate), P'''→5'-ester with uridine, tetrasodium salt  
**Synonyms:** INS365, KPY 998  
**MF:** C<sub>18</sub>H<sub>22</sub>N<sub>4</sub>O<sub>23</sub>P<sub>4</sub> • 4Na  
**FW:** 878.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 263 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Diquafosol (sodium salt) is supplied as a solid. Aqueous solutions of diquafosol (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of diquafosol (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Diquafosol is an agonist of purinergic P2Y<sub>2</sub> and P2Y<sub>4</sub> receptors (EC<sub>50</sub>s = 0.1 and 0.4 μM, respectively, in calcium mobilization assays).<sup>1</sup> It is selective for P2Y<sub>2</sub> and P2Y<sub>4</sub> receptors over P2Y<sub>6</sub> receptors (EC<sub>50</sub> = 20 μM). Ocular application of diquafosol (0.1 and 1% w/v) induces the release of mucin-like glycoproteins from rabbit conjunctival goblet cells, as well as reduces desiccation-induced corneal damage in a rabbit model of dry eye disease.<sup>2</sup> Formulations containing diquafosol have been used in the treatment of dry eye disease.

### References

1. Pendergast, W., Yerxa, B.R., Douglass, J.G., III, *et al.* Synthesis and P2Y receptor activity of a series of uridine dinucleoside 5'-polyphosphates. *Bioorg. Med. Chem. Lett.* **11(2)**, 157-160 (2001).
2. Fujihara, T., Murakami, T., Nagano, T., *et al.* INS365 suppresses loss of corneal epithelial integrity by secretion of mucin-like glycoprotein in a rabbit short-term dry eye model. *J. Ocul. Pharmacol. Ther.* **18(4)**, 363-370 (2002).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM