

PRODUCT INFORMATION



PtdIns-(4)-P₁ (1,2-dihydroxy) (sodium salt) Item No. 42496

Formal Name: (1R,2R,3R,4R,5R,6S)-4-((((R)-2,3-dihydroxypropoxy)oxidophosphoryl)oxy)-2,3,5,6-tetrahydroxycyclohexyl hydrogen phosphate, disodium salt

Synonyms: 1,2-Dihydroxy-*sn*-glycero-3-Phosphoinositol-4'-phosphate, Glycerophosphoinositol-4-phosphate, Glycerophosphoryl-*myo*-inositol-4-phosphate, GPI-P₁, GroPI-(4)-P₁, PI[4](0:0/0:0), PI(4)P₁(0:0/0:0), 0:0/0:0 PI(4)P₁

MF: C₉H₁₈O₁₄P₂ • 2Na

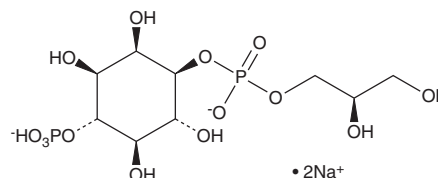
FW: 458.2

Purity: ≥98%

Supplied as: solid

Storage: -80°C

Stability: ≥1 year



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

Laboratory Procedures

PtdIns-(4)-P₁ (1,2-dihydroxy) (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the PtdIns-(4)-P₁ (1,2-dihydroxy) (sodium salt) in the solvent of choice, which should be purged with an inert gas. PtdIns-(4)-P₁ (1,2-dihydroxy) (sodium salt) is soluble (≥10 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PtdIns-(4)-P₁ (1,2-dihydroxy) (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. PtdIns-(4)-P₁ (1,2-dihydroxy) (sodium salt) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

PtdIns-(4)-P₁ (1,2-dihydroxy) is a glycerophosphoinositol containing no acyl chains at the *sn*-1 and *sn*-2 positions. It is formed via the diacylation of membrane phosphoinositides by cytoplasmic phospholipase A₂ (cPLA₂).^{1,2} PtdIns-(4)-P₁ (1,2-dihydroxy) (1-1,000 μM) inhibits cholera toxin- or thyrotropin-induced increases in cAMP in FRTL-5 cells.³ Exogenous PtdIns-(4)-P₁ (1,2-dihydroxy) induces the formation of actin membrane ruffles and stress fibers in serum-starved NIH3T3 cells.⁴

References

- Berrie, C.P., Falasca, M., Carvelli, A., *et al.* *Frontiers in Bioactive Lipids*. Vanderhoek, J.Y., editor (1996).
- Varone, A., Mariggio, S., Patheja, M., *et al.* *Cell Commun. Signal.* **17**(1), 20 (2019).
- Iacovelli, L., Falasca, M., Valitutti, S., *et al.* *The J. Biol. Chem.* **268**(27), 20402-20407 (1993).
- Mancini, R., Piccolo, E., Mariggio, S., *et al.* *Mol. Biol. Cell.* **14**(2), 503-515 (2003).

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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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