

PRODUCT INFORMATION



PtdIns-(3,4)-P₂ (1,2-dioctanoyl) (sodium salt)

Item No. 10008400

Formal Name: 1-(1,2R-dioctanoylphosphatidyl)inositol-3,4-bisphosphate, trisodium salt

Synonyms: DOPI-3,4-P₂, Phosphatidylinositol-3,4-bisphosphate C-8, PI(3,4)P₂ (8:0/8:0), PIP2[3',4'](8:0/8:0)

MF: C₂₅H₄₆O₁₉P₃ • 3Na

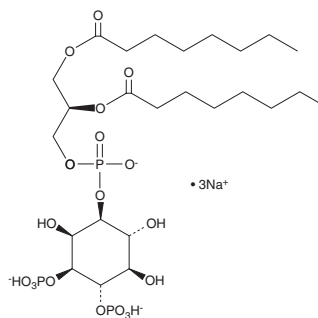
FW: 812.5

Purity: ≥98%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥5 years



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

Laboratory Procedures

PtdIns-(3,4)-P₂ (1,2-dioctanoyl) (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PtdIns-(3,4)-P₂ (1,2-dioctanoyl) (sodium salt) in water. The solubility of PtdIns-(3,4)-P₂ (1,2-dioctanoyl) (sodium salt) in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The phosphatidylinositols (PtdIns) represent a small percentage of total membrane phospholipids. However, they play a critical role in the generation and transmission of cellular signals.^{1,2} PtdIns-(3,4)-P₂ (1,2-dioctanoyl) is a synthetic analog of natural PtdIns featuring C8:0 fatty acids at the *sn*-1 and *sn*-2 positions. The compound contains the same inositol and diacylglycerol (DAG) stereochemistry as the natural compound. The natural compound is the product of phosphorylation-dephosphorylation involving PtdIn 3-kinase and 5-phosphatases. The 3D-phosphorylated PtdIns are resistant to hydrolysis by phospholipase C.³

References

1. Majerus, P.W. Inositol phosphate biochemistry. *Annu. Rev. Biochem.* **61**, 225-250 (1992).
2. Exton, J.H. Regulation of phosphoinositide phospholipases by hormones, neurotransmitters, and other agonists linked to G proteins. *Annu. Rev. Pharmacol. Toxicol.* **36**, 481-509 (1996).
3. Serunian, L.A., Haber, M.T., Fukui, T., *et al.* Polyphosphoinositides produced by phosphatidylinositol 3-kinase are poor substrates for phospholipases C from rat liver and bovine brain. *J. Biol. Chem.* **264(30)**, 17809-17815 (1989).

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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