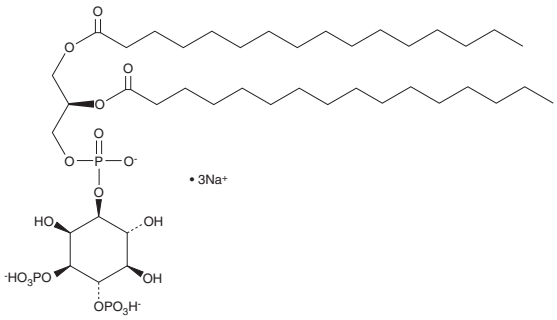
PRODUCT INFORMATION

PtdIns-(3,4)-P_2 (1,2-dipalmitoyl) (sodium salt)

Item No. 64922



Formal Name: 1-(1,2R-dihexadecanoylphophatidyl) inositol-3,4-bisphosphate, trisodium salt
Synonyms: DPPI-3,4-P_2, Phosphatidylinositol-3,4-diphosphate C-16, PI(3,4)P_2(16:0/16:0), PIP2[3',4'](16:0/16:0)
MF: $C_{41}H_{78}O_{19}P_3$ • 3Na
FW: 1,036.9
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)-P_2 (1,2-dipalmitoyl) (sodium salt) is supplied as a lyophilized powder. For biological experiments, we suggest that organic solvent-free aqueous solutions of PtdIns-(3,4)-P_2 (1,2-dipalmitoyl) (sodium salt) be prepared by directly dissolving the lyophilized powder in aqueous buffers. The solubility of PtdIns-(3,4)-P_2 (1,2-dipalmitoyl) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The phosphatidylinositols (PtdIns) phosphates 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 are phosphorylated to mono- (PtdIns-P; PIP), di- (PtdIns-P_2; PIP_2) and triphosphates (PtdIns-P_3; PIP_3). Hydrolysis of PIP_2 by PI-specific phospholipase C generates IP_3 and diacylglycerol (DAG). The DAG and IP_3 produced by this reaction are part of a complex biochemical and signal transduction cascade that is at the frontier of scientific research today.

References

1. Lapetina, E.G., Billah, M.M., and Cuatrecasas, P. The phosphatidylinositol cycle and the regulation of arachidonic acid production. *Nature* **292**, 367-369 (1981).
2. Majerus, P.W. Inositol phosphate biochemistry. *Annu. Rev. Biochem.* **61**, 225-250 (1992).

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