

PRODUCT INFORMATION



PtdIns-(4,5)-P₂ (1,2-dioctanoyl) (sodium salt)

Item No. 64910

Formal Name: 1-(1,2R-dioctanoylphosphatidyl)inositol-4,5-bisphosphate, trisodium salt

Synonyms: DOPI-4,5-P₂, Phosphatidylinositol-4,5-bisphosphate C-8, PIP₂[4',5'][(8:0/8:0)], PI(4,5)P₂ (8:0/8:0)

MF: C₂₅H₄₆O₁₉P₃ • 3Na

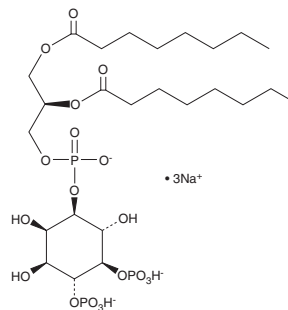
FW: 812.5

Purity: ≥97%

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-(4,5)-P₂ (1,2-dioctanoyl) (sodium salt) is supplied as a lyophilized powder. For biological experiments, we suggest that organic solvent-free aqueous solutions of PtdIns-(4,5)-P₂ (1,2-dioctanoyl) (sodium salt) be prepared by directly dissolving the lyophilized powder in aqueous buffers. It is miscible in PBS (pH 7.2). 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 are phosphorylated to mono- (PtdIns-P; PIP), di- (PtdIns-P₂; PIP₂), and triphosphates (PtdIns-P₃; PIP₃). Hydrolysis of PIP₂ by PI-specific phospholipase C generates IP₃ and diacylglycerol (DAG). The DAG and IP₃ 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).

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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