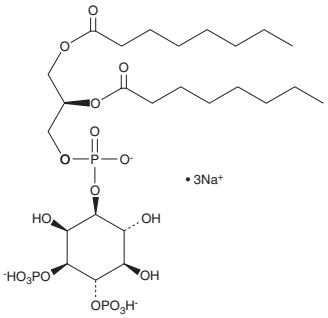
PRODUCT INFORMATION

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

Item No. 10008400

Formal Name:	1-(1,2R-dioctanoylphosphatidyl)inositol-3,4-bisphosphate, trisodium salt
Synonyms:	DOPI-3,4-P_2, Phosphatidylinositol-3,4-bisphosphate C-8, PI(3,4)P_2 (8:0/8:0), PIP2[3',4'](8:0/8:0)
MF:	$C_{25}H_{46}O_{19}P_3 \bullet 3Na$
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)-P_2 (1,2-dioctanoyl) (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PtdIns-(3,4)-P_2 (1,2-dioctanoyl) (sodium salt) in water. The solubility of PtdIns-(3,4)-P_2 (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)-P_2 (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).

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