

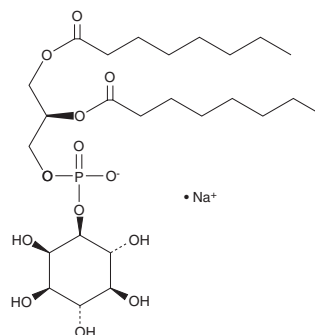
# PRODUCT INFORMATION



## PtdIns-(1,2-dioctanoyl) (sodium salt)

Item No. 10008099

**CAS Registry No.:** 899827-36-2  
**Formal Name:** 1-(1,2-dioctanoylphosphatidyl) inositol, monosodium salt  
**Synonyms:** DOPI, Phosphatidylinositol C-8  
**MF:** C<sub>25</sub>H<sub>46</sub>O<sub>13</sub>P • Na  
**FW:** 608.6  
**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-(1,2-dioctanoyl) (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PtdIns-(1,2-dioctanoyl) (sodium salt) in water. The solubility of PtdIns-(1,2-dioctanoyl) (sodium salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

The phosphatidylinositol (PtdIns) phosphates represent a small percentage of total membrane phospholipids. However, they play a critical role in the generation and transmission of cellular signals.<sup>1,2</sup> PtdIns-(1,2-dioctanoyl) is a synthetic analog of natural PtdIns containing C8:0 fatty acids at the *sn*-1 and *sn*-2 positions. The compound features the same inositol and diacyl glycerol (DAG) stereochemistry as that of the natural compound. The short fatty acid chains of this analog, compared to naturally-occurring PtdIns, gives it different physical properties including high solubility in aqueous media. PtdIns are phosphorylated to mono- (PtdIns-P; PIP), di- (PtdIns-P<sub>2</sub>; PIP<sub>2</sub>), and triphosphates (PtdIns-P<sub>3</sub>; PIP<sub>3</sub>). Hydrolysis of PtdIns-(4,5)-P<sub>2</sub> by phosphoinositide (PI)-specific phospholipase C generates inositol triphosphate (IP<sub>3</sub>) and DAG which are key second messengers in an intricate biochemical signal transduction cascade.

### References

1. 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).
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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