

# PRODUCT INFORMATION



## PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt)

Item No. 10005616

**Formal Name:** 1-(1,2-dihexadecanoyl(2,2',3,3',4,4',5,5',6,6',7,7',8,8',9,9',10,10',11,11',12,12',13,13',14,14',15,15',16,16,16-d<sub>31</sub>)phosphatidyl) inositol-3-phosphate, diammonium salt

**Synonyms:** DPPI-3-P-d<sub>62</sub>, Phosphatidylinositol-3-phosphate C16-d<sub>62</sub>, PI(3)P (16:0/16:0)-d<sub>62</sub>, PIP[3'](16:0/16:0)-d<sub>62</sub>

**MF:** C<sub>41</sub>H<sub>16</sub>D<sub>62</sub>O<sub>16</sub>P<sub>2</sub> • 2NH<sub>4</sub>

**FW:** 987.4

**Chemical Purity:** ≥98% PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl) (ammonium salt)

**Deuterium**

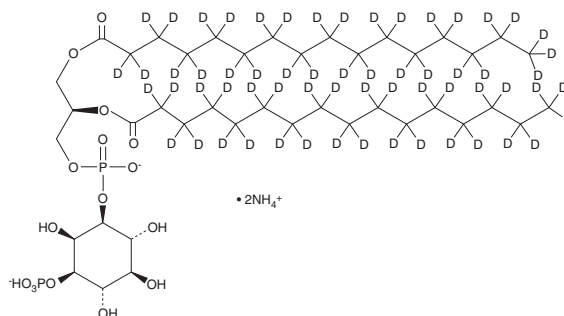
**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>62</sub>); ≤1% d<sub>0</sub>

**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)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt) is intended for use as an internal standard for the quantification of PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt) in an organic solvent purged with an inert gas. PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt) is soluble in organic solvent such as chloroform:methanol:water (4:3:1). The solubility of PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt) in this solvent is at least 1 mg/ml. PtdIns-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> (ammonium salt) will not be stable in aqueous solutions for more than 24 hours..

### 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-(3)-P<sub>1</sub> (1,2-dipalmitoyl)-d<sub>62</sub> is a synthetic analog of natural PtdIns featuring deuterated C16:0 fatty acids at the sn-1 and sn-2 positions. This synthetic standard compound contains the same inositol and diacyl glycerol (DAG) stereochemistry as that of the natural compound.

### 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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