

Product Name: PtdIns-(4,5)-P2 (1,2-dipalmitoyl)-d62 (sodium salt)
Cat. No.: GC92090

Cas. No.

Chemical 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',15,16,16,16-d31)phosphatidyl)inositol-4,5-bisphosphate, trisodium salt
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[illegible]

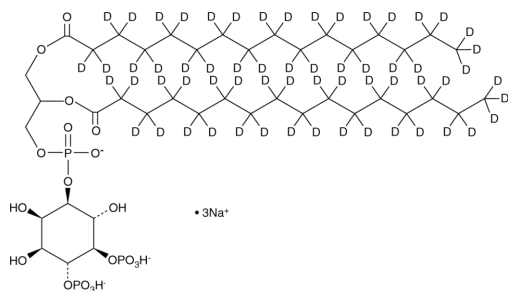
Formula	C ₄₁ H ₁₆ D ₆₂ O ₁₉ P ₃ ? 3Na	M.Wt	1099.3
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Solubility	Storage	-20°C
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General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
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Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.
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Structure



PtdIns-(4,5)-P₂ (1,2-dipalmitoyl)-d₆₂ (sodium salt) is intended for use as an internal standard for the quantification of PtdIns-(4,5)-P₂ (1,2-dipalmitoyl) (sodium salt) by GC- or LC-mass spectrometry. The

Caution: Product has not been fully validated for medical applications. For research use only.

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Product Data Sheet

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.^{1,2} PtdIns-4,5-P₂-(1,2-dipalmitoyl)-d₆₂ is a synthetic analog of natural PtdIns containing deuterated C₁₆:0 fatty acids at the *sn*-1 and *sn*-2 positions. This synthetic standard features the same inositol and diacyl glycerol (DAG) stereochemistry as that of the natural compound. The natural compound is the product of phosphatidylinositol 4-phosphate 5-kinase acting on PtdIns-(4)-P₁. Hydrolysis of PtdIns-(4,5)-P₂ by phosphoinositide (PI)-specific phospholipase C generates inositol triphosphate (IP₃) 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).

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