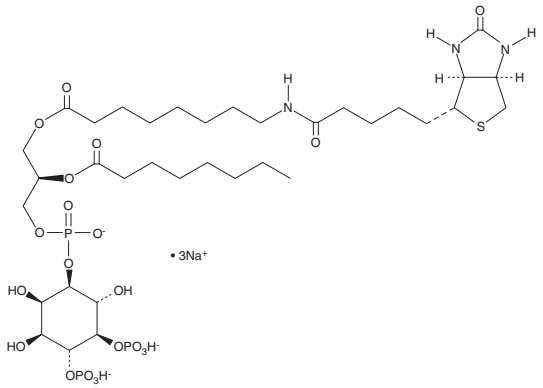
PRODUCT INFORMATION

PtdIns-(4,5)-P_2-biotin (sodium salt)

Item No. 10008159



Formal Name:	1-((1-octanoyl-N'-biotinoyl-1,6-diaminohexane-2R-octanoyl)phosphatidyl)inositol-4,5-bisphosphate, trisodium salt
Synonyms:	DOPI-4,5-P_2-biotin, Phosphatidylinositol-4,5-diphosphate C-8-biotin, PI(4,5)P_2-biotin, PIP_2[4',5']-biotin
MF:	$C_{35}H_{61}N_3O_{21}P_3S$ • 3Na
FW:	1,053.8
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-(4,5)-P_2-biotin (sodium salt) is supplied as a lyophilized powder. PtdIns-(4,5)-P_2-biotin (sodium salt) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of PtdIns-(4,5)-P_2-biotin (sodium salt) be prepared by directly dissolving the lyophilized powder in water. The solubility of PtdIns-(4,5)-P_2-biotin (sodium salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The PtdIns phosphates play an important role in the generation and transduction of intracellular signals.[1] PtdIns-(4,5)-P_2-biotin is an affinity probe which allows the PIP_2 to be detected through an interaction with the biotin ligand. This design allows PtdIns-(4,5)-P_2 to serve as a general probe for any protein with a high affinity binding interaction with inositol-(4,5)-diphosphate phospholipids, such as phosphatidylinositol 3-kinase, PTEN, or PH-domain-containing proteins.

Reference

1. Rückle, T., Schwarz, M.K., and Rommel, C. PI3Kγ inhibition: Towards an 'aspirin of the 21st century'? *Nature Reviews Drug Discovery* **5**, 903-918 (2006).

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