

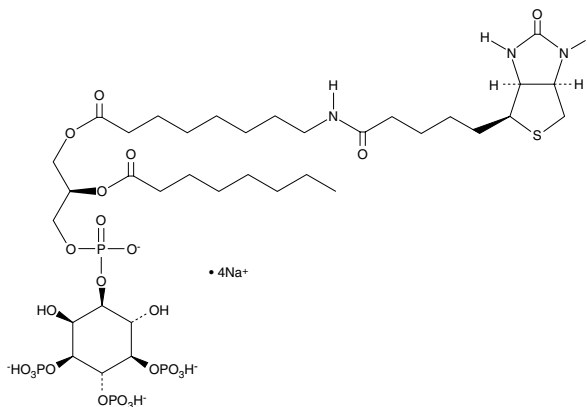
Product Information



PtdIns-(3,4,5)-P₃-biotin (sodium salt)

Item No. 10009531

CAS Registry No.: 1415684-80-8
Formal Name: 1-((1-octanoyl-N'-biotinoyl-1,6-diaminohexane-2R-octanoyl)phosphatidyl)inositol-3,4,5-triphosphate, tetrasodium salt
Synonyms: Phosphatidylinositol-3,4,5-triphosphate C-8-biotin, PIP₃-biotin
MF: C₃₅H₆₁N₃O₂₄P₄S • 4Na
FW: 1,155.8
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A lyophilized powder



Laboratory Procedures

For long term storage, we suggest that phosphatidylinositol-3,4,5-triphosphate-biotin (PtdIns-(3,4,5)-P₃-biotin) (sodium salt) be stored as supplied at -20°C. It should be stable for at least one year.

PtdIns-(3,4,5)-P₃-biotin (sodium salt) is supplied as a lyophilized powder. PtdIns-(3,4,5)-P₃-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-(3,4,5)-P₃-biotin (sodium salt) be prepared by directly dissolving the lyophilized powder in water. The solubility of PtdIns-(3,4,5)-P₃-biotin (sodium salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

The PtdIn phosphates play an important role in the generation and transduction of intracellular signals.¹⁻³ PtdIns-(3,4,5)-P₃-biotin is an affinity probe which allows the PIP₃ to be detected through an interaction with the biotin ligand. This design allows PtdIns-(3,4,5)-P₃-biotin to serve as a general probe for any protein with a high affinity binding interaction with inositol-(3,4,5)-triphosphate phospholipids, such as phosphatidylinositol 3-kinase, PTEN, or PH-domain-containing proteins.

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. 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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10009531

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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