

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: DOPI-3,4,5-P₃-biotin, Phosphatidylinositol-3,4,5-triphosphate C-8-biotin, PI(3,4,5)P₃-biotin, PIP₃-biotin, PIP3[3',4',5']-biotin

MF: C₃₅H₆₁N₃O₂₄P₄S • 4Na

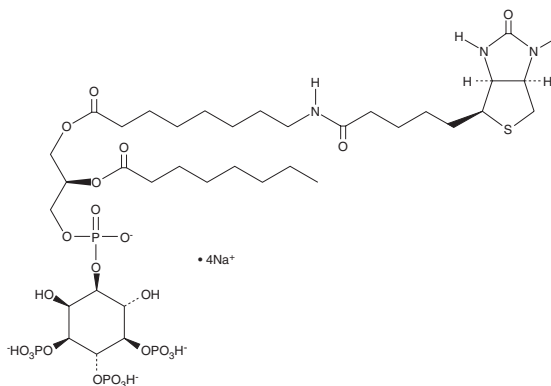
FW: 1,155.8

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-(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.

Description

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. PI3Ky inhibition: Towards an 'aspirin of the 21st century'? *Nature Reviews Drug Discovery* **5**, 903-918 (2006).

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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