Product Information

PtdIns-(3,4,5)-P$_3$-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, PIP$_3$-biotin

MF: C$_{35}$H$_{61}$N$_3$O$_{24}$P$_4$S • 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)-P$_3$-biotin) (sodium salt) be stored as supplied at -20°C. It should be stable for at least one year.

PtdIns-(3,4,5)-P$_3$-biotin (sodium salt) is supplied as a lyophilized powder. PtdIns-(3,4,5)-P$_3$-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)-P$_3$-biotin (sodium salt) be prepared by directly dissolving the lyophilized powder in water. The solubility of PtdIns-(3,4,5)-P$_3$-biotin (sodium salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

The PtdIns phosphates play an important role in the generation and transduction of intracellular signals. 1-3 PtdIns-(3,4,5)-P$_3$-biotin is an affinity probe which allows the PIP$_3$ to be detected through an interaction with the biotin ligand. This design allows PtdIns-(3,4,5)-P$_3$-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


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 to your institution.

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