

PRODUCT INFORMATION



PLC thio-PIP₂ (sodium salt)

Item No. 10007839

Formal Name: 3-(3-(1,2-dihydroxy-1,2-dihexanoyl)thiopropyl)inositol-4,5-diphosphate, trisodium salt

MF: C₂₁H₃₈O₁₈P₃S • 3Na

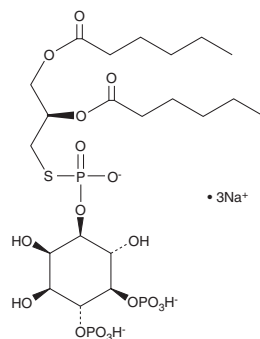
FW: 772.5

Purity: ≥98%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PLC thio-PIP₂ (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PLC thio-PIP₂ (sodium salt) in water. The solubility of PLC thio-PIP₂ (sodium salt) in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Phospholipase C (PLC) catalyzes the hydrolysis of phosphatidylinositol (4,5) bisphosphate (PIP₂) on the cytoplasmic side of the cell membrane to yield diacylglycerol and inositol-1,4,5-triphosphate (IP₃).¹⁻³ This reaction initiates a well-known signal transduction pathway common to most cells. PLC thio-PIP₂ is an analog of naturally occurring PIP₂ that contains sulfur rather than oxygen at the *sn*-3 position of the glycerol backbone. Hydrolysis by PLC yields a free thiol which reacts with chromogenic reagents such as DTNB (Ellman's reagent) to allow quantitation of PLC activity.

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. Exton, J.H. Cell signalling through guanine-nucleotide-binding regulatory proteins (G proteins) and phospholipases. *Eur. J. Biochem.* **243**(1-2), 10-20 (1997).
3. Majerus, P.W. Inositol phosphate biochemistry. *Annu. Rev. Biochem.* **61**, 225-250 (1992).

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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