PRODUCT INFORMATION



D-myo-Inositol-1,2,6-triphosphate (sodium salt)

Item No. 10007780

Formal Name:	D-myo-inositol-1,2,6-tris(hydrogen phosphate), trisodium salt	OPO₂H ⁻
Synonyms:	Ins(1,2,6)-P ₃ , 1,2,6-IP ₃	
MF:	C ₆ H ₁₂ O ₁₅ P ₃ ● 3Na	-HO ₃ PO
FW:	486.0	• 3Na+
Purity:	≥98%	нотон
Supplied as:	A lyophilized powder	
Storage:	-20°C	OH
Stability:	≥5 years	

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

Laboratory Procedures

D-myo-Inositol-1,2,6-triphosphate (sodium salt) ($Ins(1,2,6)-P_2$) is supplied as a lyophilized powder. lns(1,2,6)-P₃ is practically insoluble in organic solvents. For biological experiments, we suggest that aqueous solutions of Ins(1,2,6)-P₃ be prepared by directly dissolving the lyophilized powder in water. The solubility of Ins(1,2,6)-P₃ in water is at least 50 mg/ml.

Description

lns(1,2,6)- P_3 is a member of the inositol phosphate (lnsP) family of second messengers that play a critical role in the transmission of cellular signals.^{1,2} The most studied lnsP, lns(1,4,5)- P_3 is a second messenger produced in cells by phospholipase C (PLC)-mediated hydrolysis of phosphatidylinositol-4,5-biphosphate.^{3,4} Binding of lns(1,4,5)-P₃ to its receptor on the endoplasmic reticulum results in opening of the calcium channels and an increase in intracellular calcium.^{4,5} lns(1,2,6)-P₃ (tested as the D/L racemic mixture) is ~1,000-fold less potent than lns(1,4,5)-P₃ at initiating Ca²⁺ release when injected into *Xenopus* oocytes.⁶

References

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- 3. Streb, H., Irvine, R.F., Berridge, M.J., et al. Release of Ca²⁺ from a nonmitochondrial intracellular store in pancreatic acinar cells by inositol-1,4,5-trisphosphate. Nature 306, 67-69 (1983).
- Yoshida, Y. and Imai, S. Structure and function of inositol 1,4,5-triphosphate receptor. Jpn. J. Pharmacol. 4. 74, 125-137 (1997).
- 5. 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).
- DeLisle, S., Radenberg, T., Wintermantel, M.R., et al. Second messenger specificity of the inositol 6. trisphosphate receptor: Reappraisal based on novel inositol phosphates. Am. J. Physiol. Cell Physiol. 35, C429-C436 (1994).

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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1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM