

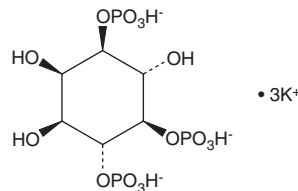
PRODUCT INFORMATION



D-myo-Inositol-1,4,5-triphosphate (potassium salt)

Item No. 60960

CAS Registry No.: 141611-11-2
Formal Name: D-myo-inositol-1,2,5-tris(dihydrogen phosphate), tripotassium salt
Synonyms: Ins(1,4,5)-P₃, 1,4,5-IP₃
MF: C₆H₁₂O₁₅P₃ • 3K
FW: 534.4
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

Ins(1,4,5)-P₃ (potassium salt) is supplied as a lyophilized powder. Ins(1,4,5)-P₃ (potassium 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 Ins(1,4,5)-P₃ (potassium salt) can be prepared by directly dissolving the lyophilized powder in aqueous buffers. The solubility of Ins(1,4,5)-P₃ (potassium salt) in PBS (pH 7.2) is approximately 50 mg/ml; sonicate until a clear solution is obtained. We do not recommend storing the aqueous solution for more than one day.

Description

Ins(1,4,5)-P₃ is a polyphosphoinositide involved in intracellular signalling. Ins(1,4,5)-P₃ is a second messenger produced in cells by phospholipase C mediated hydrolysis of phosphatidyl inositol-4,5-bisphosphate.^{1,2} It binds to one of several Ins(1,4,5)-P₃ receptors, each containing a calcium channel domain. Binding of Ins(1,4,5)-P₃ to the receptor results in opening of the calcium channels and an increase in intracellular calcium.^{2,3}

References

1. 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).
2. Yoshida, Y. and Imai, S. Structure and function of inositol 1,4,5-trisphosphate receptor. *Jpn. J. Pharmacol.* **74**, 125-137 (1997).
3. 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).

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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CAYMAN CHEMICAL

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