

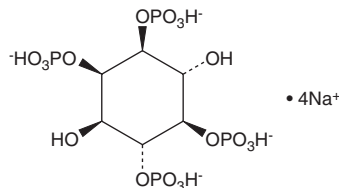
PRODUCT INFORMATION



D-*myo*-Inositol-1,2,4,5-tetraphosphate (sodium salt)

Item No. 10008451

Formal Name: D-*myo*-inositol-1,2,4,5-tetrakis(dihydrogen phosphate), tetrasodium salt
Synonyms: Ins(1,2,4,5)P₄, 1,2,4,5-IP₄
MF: C₆H₁₂O₁₈P₄ • 4Na
FW: 588.0
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

D-*myo*-Inositol-1,2,4,5-tetraphosphate (Ins(1,2,4,5)P₄) (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the Ins(1,2,4,5)P₄ (sodium salt) in water. The solubility of Ins(1,2,4,5)P₄ (sodium salt) in water is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ins(1,2,4,5)P₄ is one of the many inositol phosphate (InsP) isomers that act as small, soluble second messengers in the transmission of cellular signals.¹⁻³ Ins(1,2,4,5)P₄ exhibits agonist activity at the Ins(1,4,5)P₃ receptor expressed in CHO cells where it induces Ca²⁺ mobilization with an ED₅₀ value of 0.22 μM, making it nearly equipotent to Ins(1,4,5)P₃ (EC₅₀ = 0.1 μM) in the same assay.⁴

References

1. Berridge, M.J. Inositol trisphosphate and calcium signalling. *Nature* **361(6410)**, 315-325 (1993).
2. Majerus, P.W. Inositol phosphate biochemistry. *Annu. Rev. Biochem.* **61**, 225-250 (1992).
3. Shears, S.B. The versatility of inositol phosphates as cellular signals. *Biochim. Biophys. Acta.* **1436(1-2)**, 49-67 (1998).
4. Burford, N.T., Nahorski, S.R., Chung, S.-K., *et al.* Binding and activity of the nine possible regioisomers of *myo*-inositol tetrakisphosphate at the inositol 1,4,5-trisphosphate receptor. *Cell Calcium* **21(4)**, 301-310 (1997).

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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