

PRODUCT INFORMATION

D-myo-Inositol-1,2,3,4,5,6-hexaphosphate (lithium salt)

Item No. 44296

Formal Name: 1,2,3,4,5,6-hexakis(dihydrogen phosphate)
myo-inositol, hexalithium salt

Synonyms: IP₆, Lithium Phytate, Phytic Acid

MF: C₆H₁₂O₂₄P₆ • 6Li

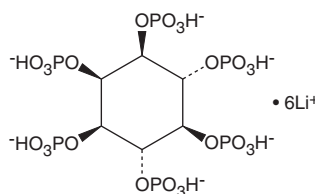
FW: 695.6

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Description

D-myo-Inositol-1,2,3,4,5,6-hexaphosphate (IP₆) is an inositol phosphate.¹ It is ubiquitously found in eukaryotes.² In mammalian cells, IP₆ functions as a phosphate storage unit and is metabolized to differentially substituted inositol phosphates, each of which are necessary for cellular functions, including signal transduction, cell growth and differentiation, energy regulation, mRNA transcription, or DNA repair.^{2,3} It inhibits iron-induced increases in thiobarbituric acid reactive substances (TBARS) and hydroxyl radical levels and chelates iron when used at a concentration of 2 mM. IP₆ (200 μM) induces apoptosis in HT-29, SW480, and SW620 colon cancer cells.⁴ Formulations containing IP₆ have been used in cosmetics and as food preservatives.

References

1. Graf, E., Empson, K.L., and Eaton, J.W. Phytic acid. A natural antioxidant. *J. Biol. Chem.* **262**(14), 11647-11650 (1987).
2. Shamsuddin, A.K. and Bose, S. IP₆ (inositol hexaphosphate) as a signaling molecule. *Curr. Signal Transduct. Ther.* **7**(3), 291 (2012).
3. Vucenik, I. Anticancer properties of inositol hexaphosphate and inositol: An overview. *J. Nutr. Sci. Vitaminol. (Tokyo)* **65**(Supplement), S18-S22 (2019).
4. Schröterová, L., Hasková, P., Rudolf, E., et al. Effect of phytic acid and inositol on the proliferation and apoptosis of cells derived from colorectal carcinoma. *Oncol. Rep.* **23**(3), 787-793 (2010).

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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