

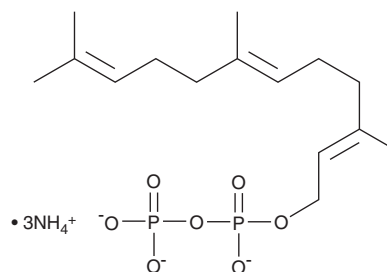
PRODUCT INFORMATION



Farnesyl Pyrophosphate (ammonium salt)

Item No. 63250

CAS Registry No.: 116057-57-9
Formal Name: P-[(2E,6E)-3,7,11-trimethyl-2,6,10-dodecatrien-1-yl] ester-diphosphoric acid, triammonium salt
Synonym: FPP
MF: C₁₅H₂₅O₇P₂ • 3NH₄
FW: 433.4
Purity: ≥95%
Supplied as: A solution in methanol:ammonium hydroxide (70:30)
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

FPP (ammonium salt) is supplied as a solution in methanol:ammonium hydroxide (70:30). Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

FPP is an intermediate in the HMG-CoA reductase pathway and used in the biosynthesis of terpenes, terpenoids, and sterols.¹ It also serves as a donor in post-translational isoprenylation of proteins.² FPP has been identified as an antagonist of P2Y₁₂ receptors (IC₅₀ = 45 μM), attenuating platelet aggregation.³ It has also been shown to regulate adipocyte function as an endogenous PPARγ agonist.⁴ Additionally, because of a flexible hydrocarbon chain that enables different conformations, FPP is a promiscuous ligand for a subset of nuclear receptors.⁵

References

1. Vance, D.E. Cholesterol and related derivatives, *Biochemistry*. Zubay, G., editor, 2nd ed., Macmillan Publishing Company, New York, 725-748 (1988).
2. McTaggart, S.J. Isoprenylated proteins. *Cell Mol. Life Sci.* **63(3)**, 255-267 (2006).
3. Högberg, C., Gidlöf, O., Deflorian, F., et al. Farnesyl pyrophosphate is an endogenous antagonist to ADP-stimulated P2Y₁₂ receptor-mediated platelet aggregation. *Thromb. Haemost.* **108(1)**, 119-132 (2012).
4. Goto, T., Nagai, H., Egawa, K., et al. Farnesyl pyrophosphate regulates adipocyte functions as an endogenous PPARγ agonist. *Biochem. J.* **438(1)**, 111-119 (2011).
5. Goyanka, R., Das, S., Samuels, H.H., et al. Nuclear receptor engineering based on novel structure activity relationships revealed by farnesyl pyrophosphate. *Protein Eng. Des. Sel.* **23(11)**, 809-815 (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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