

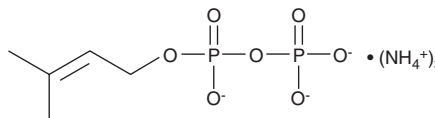
PRODUCT INFORMATION



DMAPP (ammonium salt)

Item No. 63180

CAS Registry No.: 1186-30-7
Formal Name: 3-methyl-2-butenyl-1-diphosphoric acid, triammonium salt
Synonyms: Dimethylallyl Pyrophosphate
MF: C₅H₁₂O₇P₂ • 3(NH₄)⁺
FW: 297.2
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

DMAPP (ammonium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the DMAPP (ammonium salt) in the solvent of choice, which should be purged with an inert gas. DMAPP (ammonium salt) is soluble in the organic solvent methanol. It is also soluble in water. The solubility of DMAPP (ammonium salt) in methanol and water is approximately 2 and 25 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

Dimethylallyl pyrophosphate and isopentyl pyrophosphate undergo condensation to yield geranyl pyrophosphate, which undergoes condensation with a second molecule of isopentyl pyrophosphate to yield farnesyl pyrophosphate.^{1,2} Farnesylation is essential for the function of a number of proteins involved in signal transduction.^{3,4}

References

1. Barnard, G.F. and Popják, G. Human liver prenyltransferase and its characterization. *Biochim. Biophys. Acta* **661(1)**, 87-99 (1981).
2. Laskovics, F.M. and Poulter, C.D. Prenyltransferase: Determination of the binding mechanism and individual kinetic constants for farnesylpyrophosphate synthetase by rapid quench and isotope partitioning experiments. *Biochemistry* **20(7)**, 1893-1901 (1981).
3. Hohl, R.J., Lewis, K.A., Cermak, D.M., et al. Stereochemistry-dependent inhibition of Ras farnesylation by farnesylphosphonic acids. *Lipids* **33(1)**, 39-46 (1998).
4. Rando, R.R. Chemical biology of protein isoprenylation/methylation. *Biochim. Biophys. Acta* **1300(1)**, 5-16 (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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