DMAPP (ammonium salt)

CAS Registry No.: 1186-30-7
Item No. 63180

Formal Name: Diethylallyl Pyrophosphate
Synonym: Dimethylallyl Pyrophosphate

MF: C5H12O7P2 • 3(NH4+)2
FW: 300.2

Purity: ≥95%

Stability: ≥1 year at -20°C

Supplied as: A crystalline solid

Laboratory Procedures

For long term storage, we suggest that dimethylallyl pyrophosphate (DMAPP) (ammonium salt) be stored as supplied at -20°C. It will be stable for at least one year.

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. DMAPP (ammonium salt) is soluble in organic solvents such as methanol: 10 mM NH4OH (7:3) and water, which should be purged with an inert gas. The solubility of DMAPP (ammonium salt) in methanol:10 mM NH4OH (7:3) is approximately 2 mg/ml and approximately 25 mg/ml in water.

If performing biological experiments, ensure 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.

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


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