

Neryl Diphosphate (NPP)

Catalog number: I-0120

Molecular Formula: $C_{10}H_{29}N_3O_7P_2$

MW: 365.3

CAS: 16751-02-3

Alternate Name: Neryl pyrophosphate

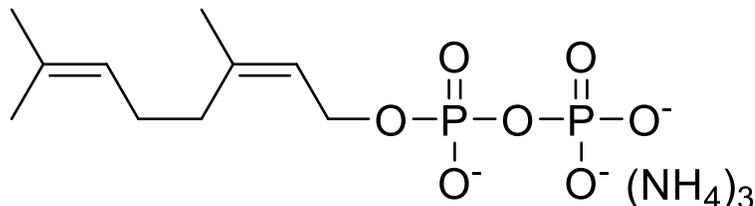
Solubility: water and most aqueous buffers, > 5 mg/mL

Storage and Handling: Store dry at $-20\text{ }^{\circ}\text{C}$. Stock solutions should be stored frozen ($-20\text{ }^{\circ}\text{C}$ or below).

Background: Isoprenoid compounds are a diverse group of natural products which are essential components in all cells. Isoprenoids are biosynthesized from the simple precursors isopentenyl diphosphate (IPP) and dimethylallyl diphosphate (DMAPP). Eukaryotes, fungi, and some gram-positive bacteria produce IPP through the mevalonate (MVA) pathway whereas gram-negative and some gram-positive bacteria utilize the non-mevalonate or 2-C-methyl-D-erythritol-4-phosphate (MEP) pathway. Neryl diphosphate is a precursor for monoterpenes such as myrcene and cyclic monoterpenes such as limonene.

References: 1) Nagel, R., J. Gershenzon, et al. (2012). "Nonradioactive assay for detecting isoprenyl diphosphate synthase activity in crude plant extracts using liquid chromatography coupled with tandem mass spectrometry." *Analytical Biochemistry* 422(1): 33.

2) Falara, V., Akhtar, T. A., Nguyen, T. T. H., Spyropoulou, E. A., Bleeker, P. M., Schauvinhold, I., ... Pichersky, E. (2011). "The tomato terpene synthase gene family." *Plant Physiology*, 157(2), 770-789. DOI: 10.1104/pp.111.179648



Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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Technical Data Sheet, Rev 2, 11-10-18 – For research use only. Not intended for diagnostic or therapeutic use.

