

Isopentenyl S-thiolodiphosphate (ISPP)

Catalog number: I-S050

Molecular Formula: C₅H₂₁N₃O₆P₂S

MW: 313.25

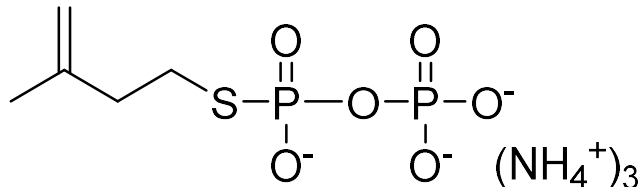
CAS#: 688307-87-1

Solubility: water or methanol, >1 mg/mL

Storage and Handling: Store dry at -20 °C. Stock solutions should be stored frozen (-20 °C or below).

Background: Isopentenyl thiolodiphosphate (ISPP) is an analog of IPP in which the non-bridging oxygen has been replaced by sulfur resulting in a less-reactive compound.

References: 1) Phan, R. M. and C. D. Poulter (2001). "Synthesis of (S)-Isoprenoid Thiodiphosphates as Substrates and Inhibitors." *The Journal of Organic Chemistry* 66(20): 6705.
2) Lee, L. V., B. Granda, et al. (2010). "Biophysical Investigation of the Mode of Inhibition of Tetramic Acids, the Allosteric Inhibitors of Undecaprenyl Pyrophosphate Synthase." *Biochemistry* 49(25): 5366.
3) Sandoval, C., M. Ayson, et al. (2014) "Use of pantothenate as a metabolic switch increases the genetic stability of farnesene producing *Saccharomyces cerevisiae*" *Metabolic Engineering* 25, 215-226.
4) Chan, YT, TP Ko, et al. (2017) "Crystal Structure and Potential Head-to-Middle Condensation Function of a Z,Z-Farnesyl Diphosphate Synthase" *ACS Omega*, 2(3), 930-936.



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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