

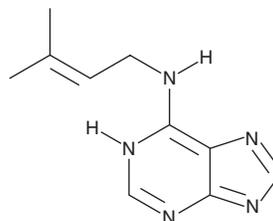
PRODUCT INFORMATION



N⁶-(Δ²-Isopentenyl)adenine

Item No. 17906

CAS Registry No.: 2365-40-4
Formal Name: N-(3-methyl-2-buten-1-yl)-9H-purin-6-amine
Synonyms: Isopentenyladenine, N⁶-Isopentenyladenine, N⁶-(2-Isopentenyl)adenine, NSC 106958
MF: C₁₀H₁₃N₅
FW: 203.2
Purity: ≥98%
UV/Vis.: λ_{max}: 210, 269 nm
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

N⁶-(Δ²-Isopentenyl)adenine is supplied as a crystalline solid. A stock solution may be made by dissolving the N⁶-(Δ²-isopentenyl)adenine in the solvent of choice. N⁶-(Δ²-Isopentenyl)adenine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of N⁶-(Δ²-isopentenyl)adenine in these solvents is approximately 5, 1, and 2 mg/ml, respectively.

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. Organic solvent-free aqueous solutions of N⁶-(Δ²-isopentenyl)adenine can be prepared by directly dissolving the crystalline solid. The solubility of N⁶-(Δ²-isopentenyl)adenine in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N⁶-(Δ²-Isopentenyl)adenine is a naturally occurring cytokinin that regulates cell division, development, and nutrient processing in plants.¹ It serves as a precursor to zeatin synthesis.^{2,3}

References

1. Laloue, M., Terrine, C., and Guern, J. Cytokinins: Metabolism and biological activity of N⁶-(Δ²-isopentenyl)adenosine and N⁶-(Δ²-isopentenyl)adenine in tobacco cells and callus. *Plant Physiol.* **59**, 478-483 (1977).
2. Einset, J.W. Zeatin biosynthesis from N⁶-(Δ²-isopentenyl)adenine in *Actinidia* and other woody plants. *Proc. Natl. Acad. Sci. USA* **83**, 972-975 (1986).
3. Einset, J.W. and Silverstone, A. Hydroxylation of N⁶-(Δ²-isopentenyl)adenine to zeatin. Relative activities of organ systems from *Actinidia Arguta*. *Plant Physiol.* **84**, 208-209 (1987).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM