

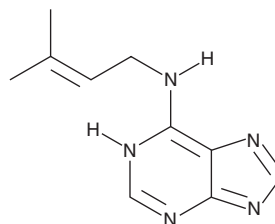
# PRODUCT INFORMATION



## N<sup>6</sup>-(Δ<sup>2</sup>-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, N<sup>6</sup>-Isopentenyladenine, N<sup>6</sup>-(2-Isopentenyl)adenine, NSC 106958  
**MF:** C<sub>10</sub>H<sub>13</sub>N<sub>5</sub>  
**FW:** 203.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 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

N<sup>6</sup>-(Δ<sup>2</sup>-Isopentenyl)adenine is supplied as a crystalline solid. A stock solution may be made by dissolving the N<sup>6</sup>-(Δ<sup>2</sup>-isopentenyl)adenine in the solvent of choice. N<sup>6</sup>-(Δ<sup>2</sup>-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 N<sup>6</sup>-(Δ<sup>2</sup>-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 N<sup>6</sup>-(Δ<sup>2</sup>-isopentenyl)adenine can be prepared by directly dissolving the crystalline solid. The solubility of N<sup>6</sup>-(Δ<sup>2</sup>-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

N<sup>6</sup>-(Δ<sup>2</sup>-Isopentenyl)adenine is a naturally occurring cytokinin that regulates cell division, development, and nutrient processing in plants.<sup>1</sup> It serves as a precursor to zeatin synthesis.<sup>2,3</sup>

### References

1. Laloue, M., Terrine, C., and Guern, J. Cytokinins: Metabolism and biological activity of N<sup>6</sup>-(Δ<sup>2</sup>-isopentenyl)adenosine and N<sup>6</sup>-(Δ<sup>2</sup>-isopentenyl)adenine in tobacco cells and callus. *Plant Physiol.* **59**, 478-483 (1977).
2. Einset, J.W. Zeatin biosynthesis from N<sup>6</sup>-(Δ<sup>2</sup>-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 N<sup>6</sup>-(Δ<sup>2</sup>-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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