

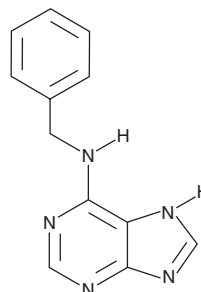
PRODUCT INFORMATION



N⁶-Benzyladenine

Item No. 21711

CAS Registry No.: 1214-39-7
Formal Name: N-(phenylmethyl)-9H-purin-6-amine
Synonyms: 6-BA, 6-BAP, N⁶-Benzylaminopurine, NSC 40818, SQ 4,609
MF: C₁₂H₁₁N₅
FW: 225.3
Purity: ≥98%
UV/Vis.: λ_{max}: 271 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N⁶-Benzyladenine is supplied as a crystalline solid. A stock solution may be made by dissolving the N⁶-benzyladenine in the solvent of choice. N⁶-Benzyladenine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of N⁶-benzyladenine in ethanol is approximately 0.5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

N⁶-Benzyladenine is a plant growth regulator.¹ It deepens color and increases firmness, as well as decreases fibrous hardness, in asparagus when applied at a concentration of 20 ppm postharvest. N⁶-Benzyladenine (1 and 2 mg/L) induces shoot multiplication and shoot growth from turmeric and ginger seeds.² It increases wart density on cucumbers when applied on cucumber plants at a concentration of 100 μM.³ It also decreases proliferation of HL-60 myeloid leukemia cells (IC₅₀ = 67.6 μM).⁴ Formulations containing N⁶-benzyladenine have been used in the control of plant growth in agriculture.

References

1. An, J., Zhang, M., Lu, Q., *et al.* Effect of a prestorage treatment with 6-benzylaminopurine and modified atmosphere packaging storage on the respiration and quality of green asparagus spears. *J. Food. Eng.* **77**(4), 951-957 (2006).
2. Balachandran, S.M., Bhat, S.R., and Chandel, K.P.S. In vitro clonal multiplication of turmeric (*Curcuma* spp.) and ginger (*Zingiber officinale* Rosc.). *Plant Cell Rep.* **8**(9), 521-524 (1990).
3. Wang, Z., Wang, L., Han, L., *et al.* HECATE2 acts with GLABROUS3 and Tu to boost cytokinin biosynthesis and regulate cucumber fruit wart formation. *Plant Physiol.* **187**(3), 1619-1635 (2021).
4. Yu, X.-J., Sun, J., Zheng, J.-Y., *et al.* Metabolomics analysis reveals 6-benzylaminopurine as a stimulator for improving lipid and DHA accumulation of *Aurantiochytrium* sp. *J. Chem. Technol. Biotechnol.* **91**(4), 1199-1207 (2016).

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.

WARRANTY AND LIMITATION OF REMEDY

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