

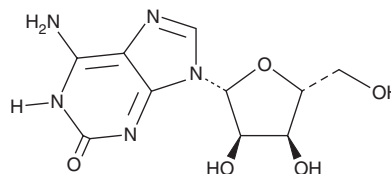
PRODUCT INFORMATION



Crotonoside

Item No. 28219

CAS Registry No.: 1818-71-9
Formal Name: 2,3-dihydro-2-oxo-adenosine
Synonyms: 2-Hydroxyadenosine,
Isoguanine riboside, Isoguanosine,
NSC 12161
MF: C₁₀H₁₃N₅O₅
FW: 283.2
Purity: ≥95%
UV/Vis.: λ_{max}: 249, 300 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Description

Crotonoside is a guanosine analog originally isolated from *C. tigilium* that has diverse biological activities.¹⁻³ It is cytotoxic to P338, L5178Y, Sp2/O, HL-60, and Raji cells *in vitro* (EC₅₀s = 21, 370, 120, 70, and 400 μM, respectively).¹ Crotonoside (48 mg/kg per day for 12 days) reduces tumor growth by 60% in S-180 sarcoma and Ehrlich carcinoma solid tumor mouse models. It has been used as an internal standard for the semi-quantitative analysis and comparison of RNA metabolites in MCF-7 breast cancer cells and MCF-10A mammary epithelial cells.⁴ Crotonoside decreases the force and rate of contraction in isolated guinea pig atria (EC₅₀s = 2.8 and 17.8 μM, respectively) and reduces carotid blood pressure in anesthetized cats when administered intravenously at a dose of 0.5 μmol/kg.^{2,3}

References

1. Kim, J.H., Lee, S.J., Han, Y.B., *et al.* Isolation of isoguanosine from *Croton tigilium* and its antitumor activity. *Arch. Pharm. Res.* **17(2)**, 115-118 (1994).
2. Fuhrman, F.A. and Fuhrman, G.J. Effects of some naturally-occurring purine ribosides on purinergic receptors in cardiac and smooth muscle. *Comp. Biochem. Physiol. C* **72(2)**, 203-210 (1982).
3. Ewing, P.L., Schlenk, F., and Emerson, G.A. Comparison of smooth muscle effects of crotonoside (isoguanosine) and adenosine. *J. Pharmacol. Exp. Ther.* **97(3)**, 379-383 (1949).
4. Bullinger, D., Neubauer, H., Fehm, T., *et al.* Metabolic signature of breast cancer cell line MCF-7: Profiling of modified nucleosides via LC-IT MS coupling. *BMC Biochem.* **8**, 25 (2007).

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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