

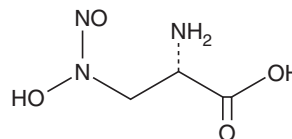
PRODUCT INFORMATION



L-Alanosine

Item No. 19545

CAS Registry No.: 5854-93-3
Formal Name: 3-(hydroxynitrosoamino)-L-alanine
Synonyms: NSC 153353, NSC 529469, SDX-102
MF: C₃H₇N₃O₄
FW: 149.1
Purity: ≥95%
UV/Vis.: λ_{max}: 250 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

L-Alanosine is supplied as a crystalline solid. A stock solution may be made by dissolving the L-alanosine in the solvent of choice. L-Alanosine is soluble in 100 mM NaOH, 100 mM hydrochloride, and water. The solubility of L-alanosine in these solvents is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-Alanosine is an antibiotic derived from bacterium *S. alanosinicus* with antineoplastic activity in cells deficient in methylthioadenosine phosphorylase (MTAP) (mean IC₅₀ = 4.8 μM and 10 μM in T-ALL and CAK-1 cells, respectively).^{1,2} L-Alanosine inhibits adenylosuccinate synthetase to disrupt *de novo* purine biosynthesis, inhibiting cellular metabolism in MTAP-deficient tumor cells.³⁻⁵

References

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2. Karikari, C.A., Mullendore, M., Eshleman, J.R., *et al.* Homozygous deletions of methylthioadenosine phosphorylase in human biliary tract cancers. *Mol. Cancer Ther.* **4(12)**, 1860-1866 (2005).
3. Gale, G.R., Ostrander, W.E., and Atkins, L.M. Effects of alanosine on purine and pyrimidine synthesis. *Biochem. Pharmacol.* **19(9)**, 1823-1832 (1968).
4. Li, C.-F., Fang, F.-M., Kung, H.-J., *et al.* Downregulated MTAP expression in myxofibrosarcoma: A characterization of inactivating mechanisms, tumor suppressive function, and therapeutic relevance. *Oncotarget* **5(22)**, 11428-11441 (2014).
5. Kindler, H.L., Burris, H.A., III, Sandler, A.B., *et al.* A phase II multicenter study of L-alanosine, a potent inhibitor of adenine biosynthesis, in patients with MTAP-deficient cancer. *Invest New Drugs* **27(1)**, 75-81 (2009).

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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