



LKT Laboratories, Inc.

## Anisomycin

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### Product Information

**Product ID** A5373  
**CAS No.** 22862-76-6  
**Chemical Name** 1,4,5-Trideoxy-1,4-imino-5-(p-methoxyphenyl)-D-xylo-pentitol  
3-acetate

**Synonym** Flagecidin

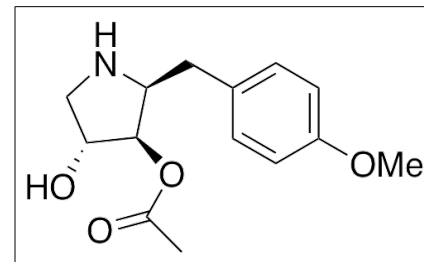
**Formula** C<sub>14</sub>H<sub>19</sub>NO<sub>4</sub>  
**Formula Wt.** 265.31  
**Melting Point** 140-141 °C  
**Purity** ≥98%

**Solubility** Moderately soluble in water; sol in lower alcohols, esters or ketones.

**Store Temp** 4 °C

**Ship Temp** Ambient

**Description** Anisomycin is an antibiotic initially produced by *Streptomyces* that retains no antibacterial activity. Anisomycin exhibits neuromodulatory and anticancer chemotherapeutic activities. Anisomycin inhibits peptidyl transferase in the 80S ribosome, suppressing protein synthesis. In animal models, anisomycin decreases facilitation of fear conditioning pre-shock; it also inhibits consolidation and reconsolidation in incentive learning models. Anisomycin induces apoptosis and inhibits cell proliferation in breast cancer cells. Anisomycin also inhibits growth of Ehrlich ascites carcinoma cells in vitro and in vivo, inducing caspase-dependent apoptosis and DNA strand breakage. Additionally, this compound inhibits expression of CDK2 and activates p53, p21, and p27, inducing cell cycle arrest and inhibiting cell proliferation in Jurkat T cells.



**Bulk quantities available upon request**

Product ID	Size
A5373	5 mg
A5373	25 mg
A5373	100 mg

**References** Monaghan D, O'Connell E, Cruickshank FL, et al. Inhibition of protein synthesis and JNK activation are not required for cell death induced by anisomycin and anisomycin analogues. *Biochem Biophys Res Commun.* 2014 Jan 10;443(2):761-7. PMID: 24333448.

Yu C, Xing F, Tang Z, et al. Anisomycin suppresses Jurkat T cell growth by the cell cycle-regulating proteins. *Pharmacol Rep.* 2013;65(2):435-44. PMID: 23744428.

You P, Xing F, Huo J, et al. In vitro and in vivo evaluation of anisomycin against Ehrlich ascites carcinoma. *Oncol Rep.* 2013 Jun;29(6):2227-36. PMID: 23525555.

Wang SH, Ostlund SB, Nader K, et al. Consolidation and reconsolidation of incentive learning in the amygdala. *J Neurosci.* 2005 Jan 26;25(4):830-5. PMID: 15673662.

Barrientos RM, O'Reilly RC, Rudy JW. Memory for context is impaired by injecting anisomycin into dorsal hippocampus following context exploration. *Behav Brain Res.* 2002 Aug 21;134(1-2):299-306. PMID: 12191817.

Grollman AP. Inhibitors of protein biosynthesis. II. Mode of action of anisomycin. *J Biol Chem.* 1967 Jul 10;242(13):3226-33. PMID: 6027796.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.