



LKT Laboratories, Inc.

Purvalanol A

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Product Information

Product ID P8270

CAS No. 212844-53-6

Chemical Name 6-[(3-Chloro)anilino]-2(1R)-(isopropyl-2-hydroxyethylamino)-9-isopropylpurine

Synonym NG-60, Purv

Formula C₁₉H₂₅ClN₆O

Formula Wt. 388.90

Melting Point

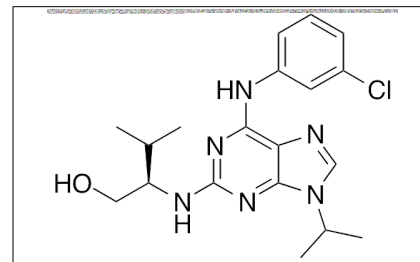
Purity ≥98%

Solubility Soluble in methylene chloride (50mg/mL), DMSO and methanol.

Store Temp -20° C

Ship Temp Ambient

Description Purvalanol A is a purine derivative anticancer compound that inhibits cyclin-dependent kinases (CDKs). Purvalanol A induces cell cycle arrest and apoptosis in breast cancer cells and is clinically used to increase efficacy of co-administered chemotherapeutics by inhibiting breast cancer resistance protein (ABCG2) transport. In adipose-derived stem cells, purvalanol A inhibits CDK1/Cdc2 and CDK2/cyclin E, altering differentiation potential. Purvalanol A also inhibits JAK2/STAT activation and RNA polymerase II activity in gastric adenocarcinoma cells. Additionally, this compound decreases human T-cell leukemia virus type 1 (HTLV-1) proliferation.



Bulk quantities available upon request

Product ID	Size
P8270	1 mg
P8270	5 mg

References Obakan P, Arsan ED, Özfiliz P, et al. Purvalanol A is a strong apoptotic inducer via activating polyamine catabolic pathway in MCF-7 estrogen receptor positive breast cancer cells. *Mol Biol Rep.* 2014 Jan;41(1):145-54. PMID: 24190492.

Hofman J, Ahmadioghaddam D, Hahnova L, et al. Olomoucine II and purvalanol A inhibit ABCG2 transporter in vitro and in situ and synergistically potentiate cytostatic effect of mitoxantrone. *Pharmacol Res.* 2012 Mar;65(3):312-9. PMID: 22173067.

Park H, Cho JA, Lim EH, et al. Cell cycle regulators are critical for maintaining the differentiation potential and immaturity in adipogenesis of adipose-derived stem cells. *Differentiation.* 2011 Oct;82(3):136-43. PMID: 21764208.

Iizuka D, Ogura A, Kuwabara M, et al. Purvalanol A induces apoptosis and downregulation of antiapoptotic proteins through abrogation of phosphorylation of JAK2/STAT3 and RNA polymerase II. *Anticancer Drugs.* 2008 Jul;19(6):565-72. PMID: 18525315.

Agbottah E, Yeh WI, Berro R, et al. Two specific drugs, BMS-345541 and purvalanol A induce apoptosis of HTLV-1 infected cells through inhibition of the NF-kappaB and cell cycle pathways. *AIDS Res Ther.* 2008 Jun 10;5:12. PMID: 18544167.

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