

Product Name: Purvalanol A

Catalog No.: 1580

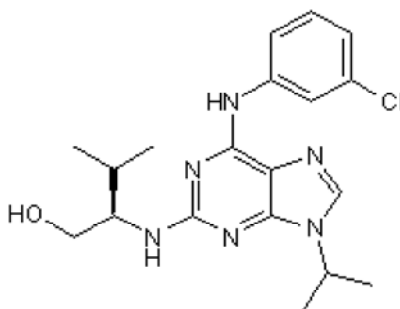
Batch No.: 3

CAS Number: 212844-53-6

IUPAC Name: (2*R*)-2-[[6-[(3-Chlorophenyl)amino]-9-(1-methylethyl)-9*H*-purin-2-yl]amino]-3-methyl-1-butanol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₅ClN₆O
Batch Molecular Weight: 388.9
Physical Appearance: White solid
Solubility: ethanol to 50 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.34 (Dichloromethane:Methanol [95:5])
HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.68	6.48	21.61
Found	58.67	6.37	21.56

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Cyclin-dependent kinase (cdk) inhibitor (reported IC₅₀ values are 4, 4 - 70, 75 - 240 and 100 nM for cdk1, cdk2, cdk5 and cdk 7, respectively). Reversibly arrests synchronized cells in G₁ and G₂, and inhibits cell proliferation and cell death.

Physical and Chemical Properties:

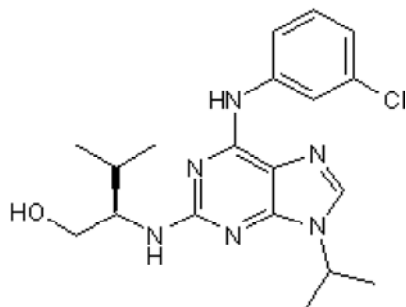
Batch Molecular Formula: C₁₉H₂₅ClN₆O

Batch Molecular Weight: 388.9

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

ethanol to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license from the Regents of the University of California

References:

Jorda et al (2018) How selective are pharmacological inhibitors of cell-cycle-regulating cyclin-dependent kinases? *J.Med.Chem.* **61** 9105. PMID: 30234987.

Bain et al (2003) The specificities of protein kinase inhibitors: an update. *Biochem.J.* **371** 199. PMID: 12534346.

Villerbu et al (2002) Cellular effects of purvalanol A: a specific inhibitor of cyclin-dependent kinase activities. *Int.J.Cancer* **97** 761. PMID: 11857351.

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