

Product Name: Purvalanol A

Catalog No.: 1580

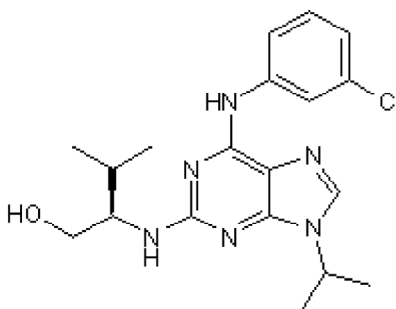
Batch No.: 3

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

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Description:

Purvalanol A is a 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 synchronised cells in G1 and G2, and inhibits cell proliferation and cell death.

Physical and Chemical Properties:

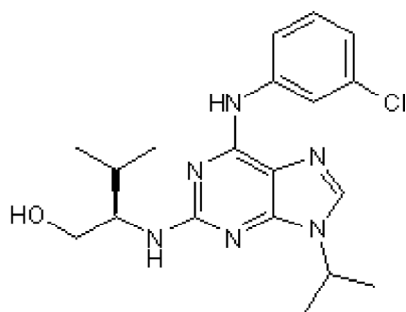
Batch Molecular Formula: C₁₉H₂₅ClN₆O

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

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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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