

Catalog # 10-2868

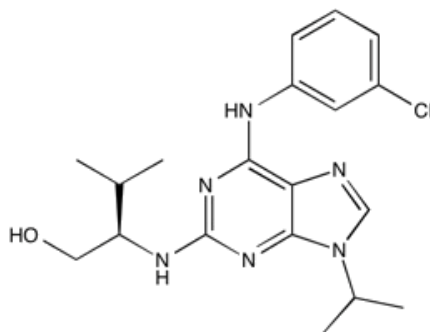
Purvalanol A

CAS# 212844-53-6

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

NG-60

Lot # X101452



Cyclin-dependent kinase inhibitor. IC_{50} s= 4, 70, 35, 75 and 850 nM for cdc2/cyclin B, cdk2/cyclin A, cdk2/cyclin E, cdk5/p35 and cdk4/cyclin D1 and respectively.¹ Reversibly arrests synchronized cells in G1 and G2 phase.² Induces ER stress-mediated apoptosis and autophagy in colon cancer cells.³ Suppresses Src-mediated transformation by inhibiting both CDKs and c-Src.⁴ In cells transformed with MYC, purvalanol A rapidly down-regulates survivin expression and induces MYC-dependent apoptosis.⁵ Cell permeable.

- 1) Gray *et al.* (1998), *Exploiting chemical libraries, structure, and genomics in the search for kinase inhibitors*; Science, **281** 533
- 2) Villerbu *et al.* (2002), *Cellular effects of purvalanol A: a specific inhibitor of cyclin-dependent kinase activities*; Int. J. Cancer, **97** 761
- 3) Coker-Gurkan *et al.* (2015), *Purvalanol induces endoplasmic reticulum stress-mediated apoptosis and autophagy in a time dependent manner in HCT116 colon cancer cells*; Oncol. Rep., **33** 2761
- 4) Hikita *et al.* (2010), *Purvalanol A, a CDK inhibitor, effectively suppresses Src-mediated transformation by inhibiting both CDKs and c-Src*; Genes Cells, **15** 1051
- 5) Goga *et al.* (2007), *Inhibition of CDK1 as a potential therapy for tumors over-expressing MYC*; Nat. Med., **13** 820

PHYSICAL DATA

Molecular Weight:	388.89
Molecular Formula:	C ₁₉ H ₂₅ ClN ₆ O
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 35 mg/ml)
Physical Description:	Pale green solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

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