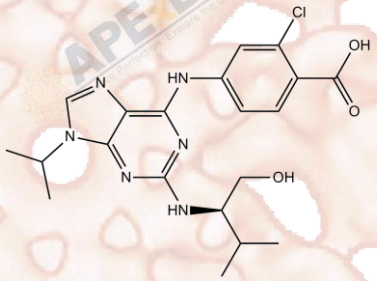
Product Data Sheet

Purvalanol B



Cat. No.:	A8565
CAS No.:	212844-54-7
Formula:	C20H25ClN6O3
M.Wt:	432.9
Synonyms:	NG 95; NG95; NG-95
Target:	Cell Cycle/Checkpoint
Pathway:	Cyclin-Dependent Kinases
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

≥21.65 mg/mL in DMSO; insoluble in H2O; ≥2.57 mg/mL in EtOH with gentle warming

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.3100 mL	11.5500 mL	23.1000 mL
5 mM	0.4620 mL	2.3100 mL	4.6200 mL
10 mM	0.2310 mL	1.1550 mL	2.3100 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	CDK1/CDK2/CDK4 inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Chinese hamster lung fibroblast CCL39 cell line, Asynchronous cells
Preparation method:	The solubility of this compound in DMSO is >21.7mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	2.5 μM

	Applications:	In Chinese hamster lung fibroblast CCL39 cell line, treatment with Purvalanol B inhibited cells proliferation via targeting CKD1 which induced a G2/M block with a GI50 of 2.5 μM. In asynchronous cells, Purvalanol B led to an accumulation of cells in G2/M phase.
In Vivo	**Animal experiment**	
	Animal models:	Mouse model with NCI-H2228 subcutaneous xenograft and Karpas 299 cells
	Dosage form:	Oral administration, 30 mg/kg/d, 2 weeks
	Applications:	In a mouse model with NCI-H2228 subcutaneous xenograft, oral administration of ASP3026 significantly reduced phosphorylated ALK and tumor growth. ASP3026 (30 mg/kg/d, 2 weeks) induced tumor regression by 78%. In mice injected with Karpas 299 cells, ASP3026 treatment caused remarkable lymphoma regression。
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Yuan J, Jiang YY, et al. "Super-Enhancers Promote Transcriptional Dysregulation in Nasopharyngeal Carcinoma." Cancer Res. 2017 Dec1;77(23):6614-6626.PMID:28951465

See more customer validations on www.apexbt.com.

References

[1]. Kuromitsu S, Mori M, Shimada I, et al. Anti-tumor activity of ASP3026,–A novel and selective ALK inhibitor[J]. 2011.

[2]. Mori M, Ueno Y, Konagai S, et al. The Selective Anaplastic Lymphoma Receptor Tyrosine Kinase Inhibitor ASP3026 Induces Tumor Regression and Prolongs Survival in Non–Small Cell Lung Cancer Model Mice. Molecular cancer therapeutics, 2014, 13(2): 329-340.

[3].George S K, Vishwamitra D, Manshouri R, et al. The ALK inhibitor ASP3026 eradicates NPM-ALK+ T-cell anaplastic large-cell lymphoma in vitro and in a systemic xenograft lymphoma model. Oncotarget, 2014, 5(14): 5750-5763.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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