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产品名称：(2R)-2-[[6-[(3-氯-4-羧基苯基)氨基]-9-(1-甲基乙基)-9H-嘌呤-2-基]氨基]-3-甲基-1-丁醇
产品别名：Purvalanol B；NG 95

生物活性：

Description

Purvalanol B(NG-95) is a cyclin-dependent kinase inhibitor with IC50 values of 6, 6, 9, > 10,000, and 6 nM for cdc2/cyclin B, cdk2/cyclin A, cdk2/cyclin E, cdk4/cyclin D1 and cdk5-p35 respectively. IC50 Value: 6 nM(cdc2/cyclin B); 6 nM(cdk2/cyclin A); 9 nM(cdk2/cyclin E); 6 nM(cdk5-p35)[1] Target: cdc2/cyclin B; cdk2/cyclin E; cdk5-p35 in vitro: In vitro inhibitory activity against Cyclin-dependent kinase 1-cyclin B complex from starfish oocytes is 6 nM (IC50) [1]. In addition to CDK1, p42/p44 MAPK were found to be two major purvalanol-interacting proteins in five different mammalian cell lines (CCL39, PC12, HBL100, MCF-7 and Jurkat cells), suggesting the generality of the purvalanol/p42/p44 MAPK interaction. When cells were treated with purvalanol, p42/p44 MAPK and CDK1 activities were inhibited in a dose-dependent manner. Furthermore, purvalanol inhibited the nuclear accumulation of p42/p44 MAPK, an event dependent on the catalytic activity of these kinases [2]. in vivo:

IC_{50} & Target

cdc2/cyclin B	cyclin dependent kinase 1-cyclinB	cdk2/cyclin A
6 nM (IC_{50})	6 nM (IC_{50})	6 nM (IC_{50})
CDK2/cyclinE	CDK5/p35	Cdk4/cyclin D1
9 nM (IC_{50})	6 nM (IC_{50})	10000 nM (IC_{50})
TrkA	TrkB	
51 nM (IC_{50})	11 nM (IC_{50})	

Solvent&Solubility

In Vitro:

DMSO : ≥ 40 mg/mL (92.40 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	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

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

In Vivo:

请根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都请先按照 In Vitro 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，澄清的储备液可以根据储存条件，适当保存；体内实验的工作液，建议您现用现配，当天使用； 以下溶剂前显示的百分比是指该溶剂在您配制终溶液中的体积占比；如在配制过程中出现沉淀、析出现象，可以通过加热和/或超声的方式助溶

1.请依序添加每种溶剂： 10% DMSO→40% PEG300 →5% Tween-80 → 45% saline

	Solubility: ≥ 2.5 mg/mL (5.78 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.78 mM，饱和度未知) 的澄清溶液。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀向上述体系中加入 50 μL Tween-80，混合均匀；然后继续加入 450 μL 生理盐水定容至 1 mL。 2.请依序添加每种溶剂： 10% DMSO →90% corn oil Solubility: ≥ 2.5 mg/mL (5.78 mM); Clear solution 此方案可获得 ≥ 2.5 mg/mL (5.78 mM，饱和度未知) 的澄清溶液，此方案不适用于实验周期在半个月以上的实验。 以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 玉米油中，混合均匀。
References	[1]. purvalanol B (CID 448991) - Compound BioActivity Data [2]. Knockaert M, et al. p42/p44 MAPKs are intracellular targets of the CDK inhibitor purvalanol. Oncogene. 2002 Sep 19;21(42):6413-24.