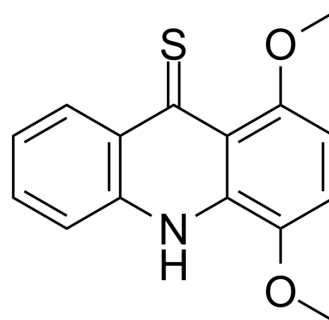


NSC 625987

Cat. No.:	HY-103380
CAS No.:	141992-47-4
Molecular Formula:	C ₁₅ H ₁₃ NO ₂ S
Molecular Weight:	271.33
Target:	CDK
Pathway:	Cell Cycle/DNA Damage
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (368.55 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	3.6855 mL	18.4277 mL	36.8555 mL
				5 mM	0.7371 mL	3.6855 mL	7.3711 mL
				10 mM	0.3686 mL	1.8428 mL	3.6855 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (9.21 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (9.21 mM); Suspended solution; Need ultrasonic						

BIOLOGICAL ACTIVITY

Description	NSC 625987 is a specific and high-affinity CDK4 inhibitor with an IC ₅₀ of 0.2 μM for CDK4:cyclin D1. NSC 625987 shows >500-fold selectivity for CDK4 over CDK2 ^[1] .
IC ₅₀ & Target	CDK4/D1 0.2 μM (IC ₅₀)
In Vitro	NSC 625987 (10 nM, 50 nM, 100 nM) treatment attenuates the enhanced proliferation of vascular smooth muscle cells (VSMC) from spontaneously hypertensive rats (SHR) rats by about 35% ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. A Kubo, et al. The p16 status of tumor cell lines identifies small molecule inhibitors specific for cyclin-dependent kinase 4. Clin Cancer Res. 1999 Dec;5(12):4279-86.
- [2]. Jasmine El Andalouji, et al. Natriuretic peptide receptor-C agonist attenuates the expression of cell cycle proteins and proliferation of vascular smooth muscle cells from spontaneously hypertensive rats: role of Gi proteins and MAPkinase/PI3kinase signaling. PLoS One. 2013 Oct 14;8(10):e76183.
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Caution: Product has not been fully validated for medical applications. For research use only.

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