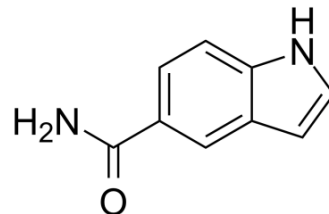


SD-169

Cat. No.:	HY-W015445		
CAS No.:	1670-87-7		
Molecular Formula:	C ₉ H ₈ N ₂ O		
Molecular Weight:	160.18		
Target:	p38 MAPK		
Pathway:	MAPK/ERK Pathway		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (624.30 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	6.2430 mL	31.2149 mL	62.4298 mL
		5 mM	1.2486 mL	6.2430 mL	12.4860 mL
10 mM		0.6243 mL	3.1215 mL	6.2430 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (12.99 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (12.99 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (12.99 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	SD-169 is an orally active ATP-competitive inhibitor of p38α MAPK, with an IC ₅₀ of 3.2 nM. SD-169 also weakly inhibits p38β MAPK with an IC ₅₀ of 122 nM. SD-169 prevents the development and progression of diabetes by inhibiting T cell infiltration and activation ^[1] .	
IC₅₀ & Target	p38α MAPK 3.2 nM (IC ₅₀)	p38β MAPK 122 nM (IC ₅₀)

In Vitro

SD-169 significantly reduces p38 and HSP60 expression in T cells of the pancreatic beta islets^[1].
SD-169 demonstrates 38-fold potency against p38 α MAP kinase (IC₅₀=3.2 nM) than p38 β MAP kinase (IC₅₀=122 nM)^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Medicherla S, et al. Preventive and therapeutic potential of p38 alpha-selective mitogen-activated protein kinase inhibitor in nonobese diabetic mice with type 1 diabetes. J Pharmacol Exp Ther. 2006 Jul;318(1):99-107.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA