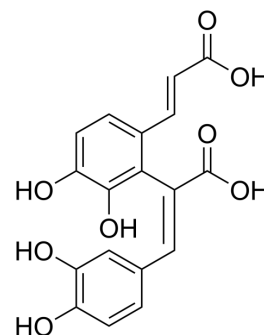


SMND-309

Cat. No.:	HY-13056		
CAS No.:	1065559-56-9		
Molecular Formula:	C ₁₈ H ₁₄ O ₈		
Molecular Weight:	358.3		
Target:	Drug Metabolite		
Pathway:	Metabolic Enzyme/Protease		
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 : ≥ 3.7 mg/mL (10.33 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		2.7910 mL	13.9548 mL	27.9096 mL
	5 mM		0.5582 mL	2.7910 mL	5.5819 mL
	10 mM		0.2791 mL	1.3955 mL	2.7910 mL

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

BIOLOGICAL ACTIVITY

Description

SMND-309 is a metabolite of salvianolic acid B, and exhibits neuroprotective effects in cultured neurons and in permanent middle cerebral artery occlusion rats^{[1][2]}.

In Vivo

SMND-309 (2.5-10 mg/kg; oral intragastric; once a day; for 4 weeks; male Sprague-Dawley rats) treatment ameliorates liver function and decreases the elevation of serum hyaluronic acid, laminin, procollagen type III levels and hydroxyproline content in liver tissue. SMND-309 also decreases the elevation in the malondialdehyde level and restored the decrease in superoxide dismutase and glutathione peroxidase activities. SMND-309 treatment reduces the liver damage and the liver fibrosis grade. SMND-309 treatment powerfully down-regulated the expression of connective tissue growth factor (CTGF) in serum and liver^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley rats (180-200 g) with carbon tetrachloride ^[1]
---------------	---

Dosage:	2.5 mg/kg, 5 mg/kg and 10 mg/kg
Administration:	Oral intragastric; once a day; for 4 weeks
Result:	The antifibrotic mechanisms might be associated with its ability to suppress the expression of CTGF as well as scavenge lipid peroxidation products and increase endogenous antioxidant enzyme activity.

REFERENCES

- [1]. Hou J, Tian J, Jiang W, Gao Y, Fu F. Therapeutic effects of SMND-309, a new metabolite of salvianolic acid B, on experimental liver fibrosis. *Eur J Pharmacol.* 2011 Jan 10;650(1):390-5.
- [2]. Yang J, Zhang G, Tian J, Li C, Jiang W, Xing Y, Zhu H, Hou J, Xu H, Wu J. Cardioprotective effect of SMND-309, a novel derivate of salvianolic acid B on acute myocardial infarction in rats. *Basic Clin Pharmacol Toxicol.* 2010 Apr;106(4):317-23.
- [3]. Wang Y, Zhang J, Han M, et al. SMND-309 promotes neuron survival through the activation of the PI3K/Akt/CREB-signalling pathway. *Pharm Biol.* 2016;54(10):1982-1990.

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