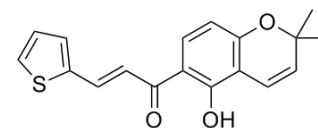


SYP-5

Cat. No.:	HY-100693		
CAS No.:	1384268-04-5		
Molecular Formula:	C ₁₈ H ₁₆ O ₃ S		
Molecular Weight:	312.38		
Target:	HIF/HIF Prolyl-Hydroxylase		
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 : 33.33 mg/mL (106.70 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.2012 mL	16.0061 mL	32.0123 mL
		5 mM	0.6402 mL	3.2012 mL	6.4025 mL
10 mM		0.3201 mL	1.6006 mL	3.2012 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 (8.00 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.00 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	SYP-5 is a novel HIF-1 inhibitor, suppresses tumor cells invasion and angiogenesis.
IC₅₀ & Target	HIF ^[1]
In Vitro	SYP-5 inhibits hypoxia-induced upregulation of HIF-1. SYP-5 inhibits HIF-1 and downstream gene expression in Hep3B and Bcap37 cells. SYP-5 inhibits tumor cell migration and invasion, as well as tumor angiogenesis, which are mediated by suppressing PI3K/AKT- and MAPK/ERK-dependent HIF-1 pathway. The proteins of vascular endothelial growth factor (VEGF) and matrix metalloproteinases (MMP)-2 that are targets of HIF-1, are down-regulated by SYP-5. SYP-5 displays significant inhibition on hypoxia-induced overexpression of VEGF and MMP2 in both cell lines. In the tube formation assay, SYP-5 suppresses angiogenesis induced by hypoxia and VEGF in vitro. SYP-5 also retards the Hep3B and Bcap37 cells migration

and invasion induced by hypoxia and FBS. SYP-5 specifically inhibits hypoxic induction of luciferase expression in U251-HRE but not in U251-pGL3^[1].

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

PROTOCOL

Cell Assay ^[1]

The cells (1×10^5 cells/mL) are seeded into 96-well culture plates. After overnight incubation, the cells are treated with various concentrations of SYP-5 (2, 10, 50 μ M) for 24 h. Then 10 μ L MTT solution (2.5 mg/mL in PBS) is added to each well, and the plates are incubated for additional 4 h at 37°C. After centrifugation (2500 rpm, 10 min), the medium containing MTT is aspirated, and 100 μ L DMSO is added. The optical density of each well is measured at 570 nm with a SpectraMax Paradigm Reader^[1].

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

REFERENCES

[1]. Wang LH, et al. SYP-5, a novel HIF-1 inhibitor, suppresses tumor cells invasion and angiogenesis. Eur J Pharmacol. 2016 Nov 15;791:560-568.

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

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