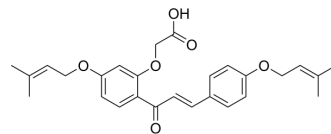


Sofalcone

Cat. No.:	HY-B2184		
CAS No.:	64506-49-6		
Molecular Formula:	C ₂₇ H ₃₀ O ₆		
Molecular Weight:	450.52		
Target:	Autophagy; Bacterial		
Pathway:	Autophagy; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (221.97 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.2197 mL	11.0983 mL	22.1966 mL
	5 mM	0.4439 mL	2.2197 mL	4.4393 mL
	10 mM	0.2220 mL	1.1098 mL	2.2197 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.75 mg/mL (6.10 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Sofalcone, a gastric antiulcer agent, is known to induce the expression of Heme oxygenase-1 (HO-1) in gastric epithelium.
IC₅₀ & Target	Heme oxygenase-1 ^[1]
In Vitro	Sofalcone (50 μmol/L) significantly increases HO-1 mRNA expression compare with the control group in both trophoblasts and HUVECs (P<0.05 for both). Western blot analysis demonstrates that Sofalcone potently increases HO-1 protein expression in primary HUVECs treated for 24 hours. Western blot analysis also reveals a significant increase in the amount of Nrf2 in the nuclear fraction of HUVECs with Sofalcone treatment (50 μmol/L) for 6 hours. In primary HUVECs, expression of NQO1, TXN, and GCLC are increased in a dose dependently manner with Sofalcone treatment for 24 hours. Sofalcone significantly decreases the sFlt-1 concentrations in the culture media and dose dependently decreases the amount of THP-1

monocyte adherence to HUVECs^[1].

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

PROTOCOL

Cell Assay ^[1]

Primary HUVECs are seeded at 60 000 cells per well and incubated at 37°C for 14 to 16 hours to allow tube formation. Cells are then cultured in the presence of either TNF- α (10 ng/mL) alone, with both TNF- α (10 ng/mL) and Sofalcone 50 μ M, or control media for 8 to 12 hours. Tube formation is assessed, and images are captured using microscope at \times 4 magnification ^[1].

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

REFERENCES

[1]. Onda K, et al. Sofalcone upregulates the nuclear factor (erythroid-derived 2)-like 2/heme oxygenase-1 pathway, reduces soluble fms-like tyrosine kinase-1, and quenches endothelial dysfunction: potential therapeutic for preeclampsia. Hypertension. 2015 Apr;65(4):855-62.

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

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