

Product Data Sheet

Product Name: Sofalcone

Cat. No.: GC31705

Chemical Properties

Cas. No. 64506-49-6

SMILES O=C(O)COC1=CC(OC/C=C(C)/C)=CC=C1C(/C=C/C2=CC=C(OC/C=C(C)/C)C=C2)=O

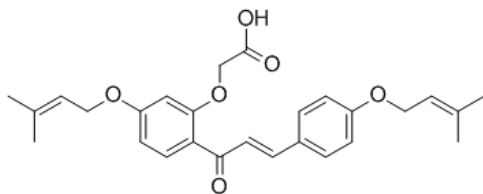
Formula $C_{27}H_{30}O_6$ M.Wt 450.52

Solubility DMSO : ≥ 100 mg/mL (221.97 mM); Water : < 0.1 mg/mL (insoluble) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Protocol

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Cell experiment: 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].

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.

Background

Sofalcone, a gastric antiulcer agent in clinical use, is known to induce the expression of Heme oxygenase-1 (HO-1) in gastric epithelium.

Sofalcone (50 μ mol/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 μ mol/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].

[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.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA