

Product Data Sheet

Product Name: SYP-5
Cat. No.: GC32876

Chemical Properties

Cas. No. 1384268-04-5

SMILES O=C(C1=C(O)C(C=CC(C)(C)O2)=C2C=C1)/C=C/C3=CC=CS3

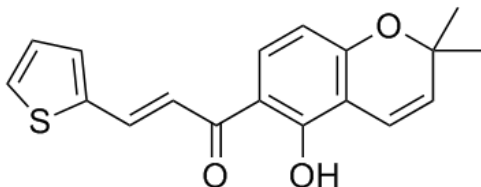
Formula $C_{18}H_{16}O_3S$ M.Wt 312.38

Solubility DMSO : 33.33 mg/mL (106.70 mM) 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.

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Cell experiment: 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].

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.

Background

SYP-5 is a novel HIF-1 inhibitor, suppresses tumor cells invasion and angiogenesis.

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].

[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.

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