Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

SGI-1776

Catalog No: tcsc0513

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
1025065-69-3

Formula:
$C_{20}H_{22}F_3N_5O$

Pathway:
JAK/STAT Signaling;Autophagy

Target:
Pim;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : 125 mg/mL (308.32 mM; Need ultrasonic)

Observed Molecular Weight:
405.42

Product Description

SGI-1776 is an inhibitor of **Pim** kinases, with **IC_{50}** of 7 nM, 363 nM, and 69 nM for Pim-1, -2 and -3, respectively.

IC50 & Target: Ki: 7 nM (Pim-1), 363 nM (Pim-2), 69 nM (Pim-3)[4]

In Vitro:

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SGI-1776 (2.5, 5 μM) inhibits Pim-1 protein expression and Pim-1 kinase activity in SACC cells. SGI-1776 (2.5, 5 μM) causes cell cycle arrest and reduces cell proliferation in SACC-83 and SACC-LM cells. SGI-1776 (5 μM) inhibits cell migration and invasiveness in both SACC-83 and SACC-LM cells. SGI-1776 (0, 2.5, or 5 μM) induces apoptosis via Caspase-3 activation[1]. SGI-1776 (5 μM) exerts inhibitory effects on both lipid accumulation and TG synthesis without affecting the number of adipocytes. SGI-1776 (5 μM) inhibits adipogenesis particularly at an early phase of differentiation. SGI-1776 (5 μM) decreases the expression of C/EBP-α and PPAR-γ and the phosphorylation levels of STAT-3 during adipocyte differentiation, and downregulates the protein and/or mRNA expression of FAS, leptin and RANTES during adipocyte differentiation[2]. SGI-1776 shows the significant activity against HO-8910 cells in a dose-dependent manner, with IC_{50} of (5.2±0.6) μM, and the inhibiting effect of SGI-1776 is sharply increased from 1.25 μM to 20 μM in vitro. SGI-1776 inhibits the migration and invasion of HO-8910 cells in a dose-dependent manner, and the inhibiting migration and invasion rate of 5 μM. SGI-1776 (2.5, 5 and 10 μM) decreases Pim-1 kinase activity of HO-8910 cells in a dose-dependent manner. Furthermore, the down-regulation of Pim-1 expression by SGI-1776 significantly inhibits cell viability, arrests cell in G1 phase, and inhibits the migration and invasion[3].

In Vivo: SGI-1776 (75, 200 mg/kg, p.o.) shows potent and sustained antitumor activity in a dose dependent manner in MV-4-11 xenografts[4].