Web: www.taiclone.com
Tel: +886-2-2735-9682
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WAY 316606

Catalog No: tcsc0996

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
915759-45-4

Formula:
$C_{18}H_{19}F_3N_2O_4S_2$

Pathway:
Stem Cell/Wnt

Target:
sFRP-1

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
448.48

Product Description

WAY 316606 is an inhibitor of the secreted protein **sFRP-1**, an endogenous antagonist of the secreted glycoprotein **Wnt**. The affinity

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of WAY-316606 for sFRP-1 is determined using the FP binding assay with **IC_{50}** of 0.5 μM.

IC50 & Target: IC50: 0.5 μM (sFRP-1)[1]

In Vitro: The EC_{50} of WAY-316606 for Wnt-Luciferase Activity from U2-OS Cells is 0.65 μM[1]. WAY-316606 binds to secreted frizzled-related protein (sFRP)-1 inhibitor with a K_D of 0.08 μM and inhibits sFRP-1 with an EC_{50} of 0.65 μM. WAY-316606 also binds to sFRP-2, albeit over 10 times weaker with a K_D of 1 μM. Using a fluorescence polarization binding assay that employs a fluorescent probe compound and purified human sFRP-1 protein in a competitive-binding format, the IC_{50} for WAY-316606 is 0.5 μM[2].

In Vivo: WAY-316606 increases bone formation when tested in a neonatal murine calvarial assay. WAY-316606 increases total bone area up to 60% in a dose-dependent manner with an EC50 of about 1 nM. WAY-316606 has good aqueous solubility, moderate to low inhibition of cytochrome p450 isozymes (3A4, 2D6, 2C9) and good stability in rat and human liver microsomes ($t_{1/2}$>60 min in each species). In female Sprague-Dawley rats, WAY-316606 exhibits high plasma clearance (77 mL/min/kg, greater than hepatic blood flow) following a single intravenous bolus dose (2 mg/kg), which results in a rapid decline of drug exposure in the plasma despite the route of administration[2].