

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

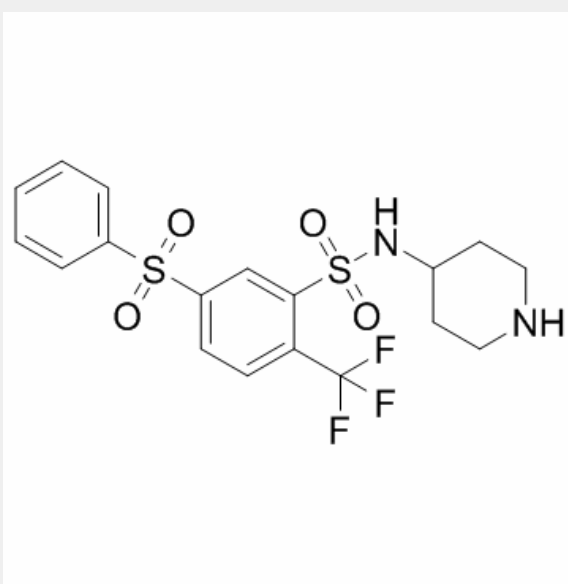
WAY 316606 is an inhibitor of the secreted protein **sFRP-1**, an endogenous antagonist of the secreted glycoprotein **Wnt**. The affinity

of WAY-316606 for sFRP-1 is determined using the FP binding assay with **IC₅₀** of 0.5 μ M.

IC50 & Target: IC50: 0.5 μ M (sFRP-1)^[1]

In Vitro: The EC₅₀ of WAY-316606 for Wnt-Luciferase Activity from U2-OS Cells is 0.65 μ M^[1]. WAY-316606 binds to secreted frizzled-related protein (sFRP)-1 inhibitor with a K_D of 0.08 μ M and inhibits sFRP-1 with an EC₅₀ of 0.65 μ M. WAY-316606 also binds to sFRP-2, albeit over 10 times weaker with a K_D of 1 μ M. Using a fluorescence polarization binding assay that employs a fluorescent probe compound and purified human sFRP-1 protein in a competitive-binding format, the IC₅₀ for WAY-316606 is 0.5 μ M^[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].



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