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

PIK-93

Catalog No: tcsc0203

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
593960-11-3

Formula:
$C_{14}H_{16}ClN_3O_4S_2$

Pathway:
PI3K/Akt/mTOR;PI3K/Akt/mTOR

Target:
PI3K;PI4K

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 150 mg/mL (384.73 mM)

Observed Molecular Weight:
389.88

Product Description

PIK-93 is the first potent, synthetic **PI4K (PI4KIIIβ)** inhibitor with **IC_{50}** of 19 nM, and also inhibits **PI3Kγ** and **PI3Kα** with **IC_{50}** of 16 nM and 39 nM, respectively.

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

IC50 & Target: IC50: 19 nM (PI4KIIIβ), 39 nM (p110α), 16 nM (p110γ), 590 nM (p110β), 120 nM (p110δ), 140 nM (PI3KC2β), 64 nM (DNA-PK)[1]

In Vitro: PIK-93 inhibits PI3Kγ and PI4KIIIβ, with IC_{50} values of 16 nM and 19 nM, respectively. PIK-93 also inhibits other members of PI3Ks, including PI3Kα, β, and δ, with IC_{50} values of 39 nM, 0.59 μM, and 0.12 μM, respectively. PIK-93 shows no obvious inhibitory effect against a panel of other kinases, even at a concentration of 10 μM[1]. In differentiated HL60 (dHL60) cells, PIK-93 (0.5 μM-1 μM) impairs consolidation and stability of the leading edge formed after treatment with uniform f-Met-Leu-Phe (fMLP). PIK-93 alters the localization, but not the amount, of the fMLP-dependent accumulation of total F-actin. In fMLP gradients, PIK-93 reduces the chemotactic index and triples the cells\' turning frequency[2]. In COS-7 cells, PIK-93 (250 nM) effectively abrogates the accumulation of CERT-PH domain and FL-Cer in Golgi. PIK-93 of the same concentration also significantly inhibits the conversion of [^{3}H]serine-labeled endogenous ceramide to sphingomyelin. These facts indicate a key role of PI4KIIIβ in ceramide transport between the ER and Golgi, as well as in the regulation of spingomyelin synthesis[3]. In T6.11 cells, PIK-93 (300 nM) reduces carbachol-induced translocation of TRPC6 to the plasma membrane and net Ca^{2+} entry[4]. A recent report shows that PIK-93 has anti-enterovirus effects, as revealed by its inhibition of both poliovirus (PV) and hepatitis C virus (HCV) replication, with EC_{50} values of 0.14 μM and 1.9 μM, respectively[5].