

# 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 :  $\geq$  150 mg/mL (384.73 mM)

**Observed Molecular Weight:**

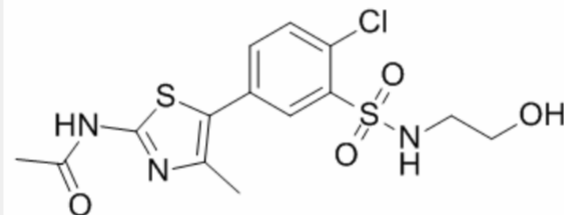
389.88

## Product Description

PIK-93 is the first potent, synthetic **PI4K (PI4KIII $\beta$ )** inhibitor with **IC<sub>50</sub>** of 19 nM, and also inhibits **PI3K $\gamma$**  and **PI3K $\alpha$**  with **IC<sub>50</sub>** of 16 nM and 39 nM, respectively.

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)<sup>[1]</sup>

**In Vitro:** PIK-93 inhibits PI3Kγ and PI4KIIIβ, with IC<sub>50</sub> values of 16 nM and 19 nM, respectively. PIK-93 also inhibits other members of PI3Ks, including PI3Kα, β, and δ, with IC<sub>50</sub> 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<sup>[1]</sup>. 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<sup>[2]</sup>. 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 [<sup>3</sup>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 sphingomyelin synthesis<sup>[3]</sup>. In T6.11 cells, PIK-93 (300 nM) reduces carbachol-induced translocation of TRPC6 to the plasma membrane and net Ca<sup>2+</sup> entry<sup>[4]</sup>. 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<sub>50</sub> values of 0.14 μM and 1.9 μM, respectively<sup>[5]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!