Taiclone®
Quality Guarantee

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

VO-Ohpic (trihydrate)

Catalog No: tcsc0519

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Specifications

CAS No:
476310-60-8

Formula:
$C_{12}H_{16}N_2O_{11}V$

Pathway:
PI3K/Akt/mTOR

Target:
PTEN

Purity / Grade:
>98%

Solubility:
H2O :

Alternative Names:
VO-Ohpic

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Observed Molecular Weight:
415.2

Product Description

VO-Ohpic trihydrate is an extremely potent inhibitor of **PTEN** with **IC_{50}** of 46±10 nM.

IC50 & Target: IC50: 46±10 nM (PTEN)[1]

In Vitro: VO-OHpic with two OHpic ligands and an oxo ligand is a sterically demanding molecule, and one will therefore expect that binds substrate will affect the subsequent binding of the inhibitor due to steric hindrance. VO-OHpic significantly inhibits PTEN activity in low nanomolar concentrations (IC_{50}, 46±10 nM), which is in agreement with the previously determined potency (IC_{50}, 35±2 nM) in a PIP_3-based assay. The inhibition constants K_{ic} and K_{iu} are determined to be 27±6 and 45±11 nM, respectively[1]. VO-OHpic is an encouragingly specific and potent PTEN inhibitor. VO-OHpic is the most potent inhibitor (IC_{50}=35 nM) of the PTEN lipid phosphatase activity[2].

In Vivo: PTEN is inhibited in mice by intra-peritoneal injection of VO-OHpic (10 μg/kg) 30 min before ischemia and then exposed them to 30 min of ischemia and 120 min of reperfusion. At the end of the experiment, myocardial infarct size is measured by triphenyltetrazolium chloride (TTC). Myocardial infarct size is significantly decreased in VO-treated mice (25±6 vs. 56±5 %, n=7, P0.05)[3].