Taiclone®
Quality Guarantee

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MK 2206 (dihydrochloride)

Catalog No: tcsc0002

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Specifications

CAS No:
1032350-13-2

Formula:
$C_{25}H_{23}Cl_2N_5O$

Pathway:
PI3K/Akt/mTOR;Autophagy

Target:
Akt;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : 4.9 mg/mL (10.20 mM; Need ultrasonic and warming); H2O : 3.81 mg/mL (7.93 mM; Need ultrasonic and warming)

Observed Molecular Weight:
480.39

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Product Description

MK 2206 is an orally active allosteric **Akt** inhibitor with **IC_{50}**s of 5, 12 and 65 nM for **Akt1**, **Akt2** and **Akt3**, respectively.

IC50 & Target: IC50: 5 nM/12 nM/65 nM (Akt1/Akt2/Akt3)[1]

In Vitro: The NPC cell lines CNE-1, CNE-2, HONE-1, and SUNE-1 are treated with increasing doses of MK-2206 (0-10 μM) for 72 and 96 hours, results in dose- and time-dependent inhibition of cell viability. At 72 and 96 hours, the IC_{50} values of MK-2206 in CNE-1, CNE-2, and HONE-1 cell lines are 3-5 μM, and in SUNE-1, they are less than 1 μM[1]. MK-2206 alone more potently inhibits the cell growth of Ras wild-type (WT) cell lines (A431, HCC827, and NCI-H292; IC_{50}s of 5.5, 4.3, and 5.2 μM, respectively) as compared with Ras-mutant cell lines (NCI-H358, NCI-H23, NCI-H1299, and Calu-6; IC_{50}s of 13.5, 14.1, 27.0, and 28.6 μM, respectively), with the exception of NCI-H460, which has a PIK3CA E545K mutation (IC_{50}, 3.4 μM)[2].

In Vivo: MK-2206 doses (480 mg/kg once a week and 240 mg/kg three times a week) can inhibit the growth of human CNE-2 xenografts in nude mice. In the two MK-2206 groups, the tumor weights are much lighter than the control group (P[1].