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

MK-5108

Catalog No: tcsc0696

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1010085-13-8

Formula:
$C_{22}H_{21}ClFN_3O_3S$

Pathway:
Cell Cycle/DNA Damage;Epigenetics

Target:
Aurora Kinase;Aurora Kinase

Purity / Grade:
>98%

Solubility:
DMSO : 6.4 mg/mL (13.85 mM; Need warming)

Alternative Names:
VX-689

Observed Molecular Weight:
461.94

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Product Description

MK-5108 is a highly potent and specific inhibitor of **Aurora-A** kinase with an **IC_{50}** value of 0.064 nM.

IC50 & Target: IC50: 0.064 nM (Aurora-A kinase)[1]

In Vitro: MK-5108 inhibits Aurora-A activity with an IC_{50} value of 0.064 nM in an ATP-competitive manner. It shows robust selectivity against the other family kinases Aurora-B (220-fold) and Aurora-C (190-fold). MK-5108 also exhibits high selectivity for Aurora-A over other protein kinases. MK-5108 inhibits the growth of 14 cell lines with IC_{50} values between 0.16 and 6.4 μM[1].

In Vivo: MK-5108 treatments at 15 and 30 mg/kg results in significant tumor growth inhibition in the HCT116 tumor model. MK-5108 is well tolerated at both doses, with minimal reduction in body weight. MK-5108 also exhibits significant antitumor activity in nude rats bearing SW48 tumors. MK-5108 at 15 and 45 mg/kg causes dose-dependent tumor growth inhibition with a %T/C of 35% and 7% at day 10, and 58% and 32% at day 27, respectively. MK-5108 is well tolerated in nude rats, with no body weight reduction and moderate effect on blood cells[1].