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

SCH900776

Catalog No: tcsc1117

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
891494-63-6

Formula:
$C_{15}H_{18}BrN_7$

Pathway:
Cell Cycle/DNA Damage

Target:
Checkpoint Kinase (Chk)

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
MK-8776

Observed Molecular Weight:
376.25

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Product Description

SCH900776 is a potent, selective and orally bioavailable inhibitor of checkpoint kinase1 (**Chk1**) with **IC_{50}** of 3 nM, and has much greater selectivity than Chk2 (IC_{50}=1500 nM) and cyclin-dependent kinase CDK2 (IC_{50}=160 nM).

IC50 & Target: IC50: 3 nM (Chk1), 160 nM (CDK2), 1500 nM (Chk2)[2]

In Vitro: SCH900776 (300 nM) shows potent inhibitory activities against phosphorylation at ser296-Chk1. SCH900776 (1 μM) causes a 30-fold decrease in the IC_{50} for hydroxyurea in MDA-MB-231 cells[1]. The K_d value of SCH 900776 for the CHK1 kinase domain is 2 nM. SCH 900776 exhibits an approximate EC_{50} of 60 nM in cells exposure to hydroxyurea. SCH 900776 induces dose-dependent suppression of CHK1 pS296 and concomitant accumulation of phospho-RPA signal in U2OS cells[2].

In Vivo: SCH 900776 induces the γ-H2AX biomarker at 4 mg/kg (i.p.), and enhances tumor pharmacodynamic and regression responses in A2780 xenograft model. SCH 900776 (16 and 32 mg/kg, i.p.) induces incremental improvements in tumor response. Escalation of SCH 900776 dose to 20 and 50 mg/kg in combination with gemcitabine results in improvements in TTP 10× in the A2780 xenograft systems[2].