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

Ceralasertib

Catalog No: tcsc5187

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1352226-88-0

Formula:
$C_{20}H_{24}N_6O_2S$

Pathway:
Cell Cycle/DNA Damage;PI3K/Akt/mTOR

Target:
ATM/ATR;ATM/ATR

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 38 mg/mL (92.12 mM)

Alternative Names:
AZD6738

Observed Molecular Weight:
412.51

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Product Description

AZD6738 is a potent inhibitor of **ATR** kinase with an **IC_{50}** of 1 nM.

IC50 & Target: IC50: 1 nM (ATR kinase)[1]

In Vitro: AZD6738 is a potent inhibitor of ATR kinase activity with an IC_{50} of 0.001 μM against the isolated enzyme and 0.074 μM against ATR kinase-dependent CHK1 phosphorylation in cells. AZD6738 induces cell death and senescence in non-small cell lung cancer (NSCLC) cell lines. AZD6738 impairs viability of four Kras mutant cell lines: H23, H460, A549, and H358. , with the lowest GI_{50} and greatest maximal inhibition in H460 and H23 cells (1.05 μM, 88.0% and 2.38 μM, 86.2%, respectively). AZD6738 potentiates the cytotoxicity of cisplatin and gemcitabine in NSCLC cell lines with intact ATM kinase signaling, and potently synergizes with cisplatin in ATM-deficient NSCLC cells[1]. AZD6738 inhibits human breast cancer cell lines with IC_{50} values less than 1 μM using MTT assay. AZD6738 induces cell cycle arrest and apoptosis. It downregulates DNA damage response molecules and cell proliferative signaling molecules[2].

In Vivo: Daily administration of AZD6738 and ATR kinase inhibition for 14 consecutive days is tolerated in mice and enhances the therapeutic efficacy of cisplatin in xenograft models. Remarkably, the combination of cisplatin and AZD6738 resolves ATM-deficient lung cancer xenografts[1].