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

AZ3146

Catalog No: tcsc0883

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1124329-14-1

Formula:
$C_{24}H_{32}N_6O_3$

Pathway:
Cell Cycle/DNA Damage;Cytoskeleton

Target:
Mps1;Mps1

Purity / Grade:
>98%

Solubility:
DMSO : 11.75 mg/mL (25.96 mM; Need ultrasonic and warming)

Observed Molecular Weight:
452.55

Product Description

AZ3146 is a reasonably potent and selective **Mps1** inhibitor with **IC_{50}** of 35 nM for $Mps1^{Cat}$.

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IC50 & Target: IC50: 35 nM (Mps1)[1]

In Vitro: In in vitro kinase assays, AZ3146 inhibits human $Mps1^{Cat}$ with IC_{50} of ~35 nM. AZ3146 also efficiently inhibits autophosphorylation of full-length Mps1 immunoprecipitated from human cells[1]. TTK specific kinase inhibitor AZ3146 can decrease HCC cell growth. In vitro cell cytotoxicity assays are performed on SMMC-7721 and BEL-7404 cells. IC_{50}s are calculated as being 7.13 μM (BEL-7404) and 28.62 μM (SMMC-7721). Both cells are further treated under the concentration of IC50 for 4 days. Significant inhibitions of cell proliferation are observed[2]. HCT116 cells are cultured for 10 days in 0.8 μM (the GI_{50}) of AZ3146 , then 2 μM AZ3146 for 3 weeks. Sixteen clones are isolated and cell lines generated, named AzR1-16, all of which are resistant to AZ3146-induced cell death in cell viability assays; AzR3 and 4 have a GI_{50} of approximately 3 μM (4-fold resistance), while the remaining clones have a GI_{50} of approximately 9 μM (11-fold resistance). When analyzing mitosis by time-lapse microscopy, while 2 μM AZ3146 causes the parental cell line to rapidly exited mitosis in 10 minutes[3].