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

AT9283

Catalog No: tcsc0107

Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
896466-04-9

Formula:
$C_{19}H_{23}N_7O_2$

Pathway:
Epigenetics;Stem Cell/Wnt;JAK/STAT Signaling;Cell Cycle/DNA Damage;Epigenetics;Autophagy

Target:
JAK;JAK;JAK;Aurora Kinase;Aurora Kinase;Autophagy

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
381.43

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Product Description

AT9283 is a multi-targeted inhibitor with **IC_{50}**s of 1.2 nM, 1.1 nM for **JAK2** and **JAK3**, respectively, and is also potent to Aurora A, Aurora B and Abl(T315I).

IC50 & Target: IC50: 1.2 nM (JAK2), 1.1 nM (JAK3), 3 nM (Aurora A), 3 nM (Aurora B)[1]

In Vitro: AT9283 leads to a clear polyploid phenotype by inhibiting the activity of Aurora B kinase in HCT116 cells with IC_{50} of 30 nM. Furthermore, AT9283 also produces the potent inhibition on HCT116 colony formation[1]. AT9283 induces apoptosis in a dose and time dependent manner and inhibits cell proliferation with an IC_{50}[2]. AT9283 inhibits growth, induces dose dependent cytotoxicity, and inhibits STAT3 signaling pathway in MM cell lines. T9283 inhibits phospho Histone H3 and phospho Aurora A at Thr 288. AT9283 increases G2/M phase and induces apoptosis of MM cells in a time-dependent manner[3].

In Vivo: In HCT116 human colon carcinoma xenograft bearing mice, AT9283 treatment (15 mg/kg and 20 mg/kg) for 16 days results in a significant tumor growth inhibition of 67% and 76%, respectively. In addition, AT9283 also exhibits a significantly longer half-life in tumors (2.5 hours) compared with plasma (0.5 hour) and modest oral bioavailability in mice[1]. AT9283 (15 mg/kg) and docetaxel (10 mg/kg) alone has modest anti-tumor activity. T9283 at 20 mg/kg and AT9283 (15 or 20 mg/kg) plus docetaxel (10 mg/kg) demonstrate a statistically significant tumor growth inhibition and enhance survival inmouse xenograft model of mantle cell lymphoma[2]. AT9283 (45 mg/kg, i.p.) inhibits tumor growth in mice. Two cycles of AT9283 45 mg/kg 14 hours after drug administration confirm decreased expression of phospho-Histone H3 and Aurora B in treated animals[3].