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

KU-55933

Catalog No: tcsc0146

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g

Specifications

CAS No:
587871-26-9

Formula:
$C_{21}H_{17}NO_3S_2$

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

Target:
Autophagy;ATM/ATR;ATM/ATR

Purity / Grade:
>98%

Solubility:
DMSO : 80 mg/mL (202.28 mM; Need ultrasonic)

Observed Molecular Weight:
395.49

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Product Description

KU-55933 is a potent **ATM** inhibitor with an **IC_{50}** and **K_i** of 12.9 and 2.2 nM, respectively, and highly selective for ATM as compared to DNA-PK, PI3K/PI4K, ATR and mTOR.

IC50 & Target: IC50: 12.9 nM (ATM)[1]

In Vitro: KU-55933 (10 μM) blocks the ionizing radiation-induced p53 serine 15 phosphorylation. KU-55933 has a dose-dependent effect in inhibiting this ATM-dependent phosphorylation event with an estimated IC_{50} of 300 nM. KU-55933 ablates the ionizing radiation-induced phosphorylation of these ATM substrates. KU-55933 specifically inhibits ATM but not the other DNA damage-activated PIKKs, ATR, and DNA-PK[1]. KU-55933 induces pATM, p53, E2F1 and pATR, noticeably upregulates the nuclear fraction of E2F1 at the 0.5 h time point[2]. Metformin increases ATM and AMPK phosphorylation, as well as SHP protein level in primary hepatocytes, and this stimulatory effect of metformin is repressed by a specific ATM kinase inhibitor KU-55933[3].