

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:

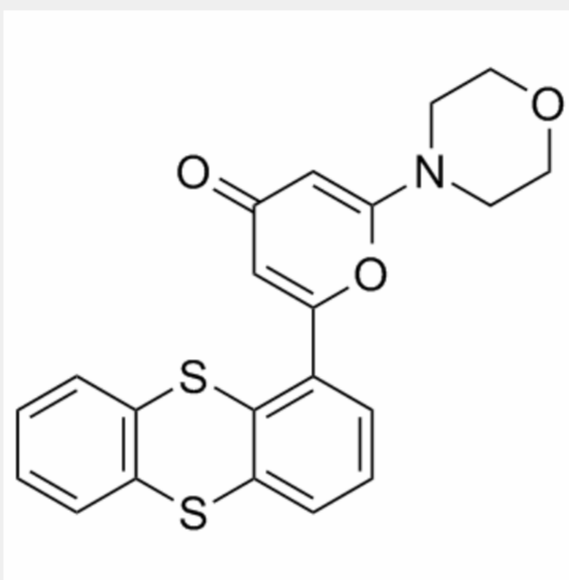
395.49

Product Description

KU-55933 is a potent **ATM** inhibitor with an **IC₅₀** 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 IC₅₀ 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].



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