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

KU-60019

Catalog No: tcsc0221

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
925701-46-8

Formula:
$C_{30}H_{33}N_3O_5S$

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

Target:
ATM/ATR;ATM/ATR

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 30 mg/mL (54.78 mM)

Observed Molecular Weight:
547.67

Product Description

KU-60019 is an improved **ATM** kinase-specific inhibitor with **IC_{50}** of 6.3 nM.

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

IC50 & Target: IC50: 6.3 nM (ATM)[1]

In Vitro: KU-60019 is an improved analogue of KU-55933. KU-55933 has an IC_{50} of 13 nM and K_i of 2.2 nM in vitro and is highly specific for the ATM kinase using a panel of 60 protein kinases. KU-60019 is an improved inhibitor of the ATM kinase with an IC_{50} of 6.3 nM, approximately half that of KU-55933. The IC_{50} values for DNA-PKcs and ATR are 1.7 and >10 μM, respectively, almost 270- and 1600-fold higher than for ATM. KU-60019 is 10-fold more effective than KU-55933 at blocking radiation-induced phosphorylation of key ATM targets in human glioma cells. In human U87 glioma cells, KU-55933 completely inhibits phosphorylation of p53 (S15) at 10 μM but not at 3 μM, whereas γ-H2AX levels are only partly reduced with 10 μM 1 h after irradiation. By comparison, 3 μM KU-60019 completely inhibits p53 phosphorylation and partial inhibits at 1 μM[1].

In Vivo: Despite PTEN-deficient control tumors reaching a 4-fold increase in size before PTEN wild-type controls, KU-60019-treated PTEN-deficient tumors display a statistically significant slowing in growth. This growth inhibition is especially evident at the start of the experiment (days 5-12) just after KU-60019 is administered (days 1-5)[2].