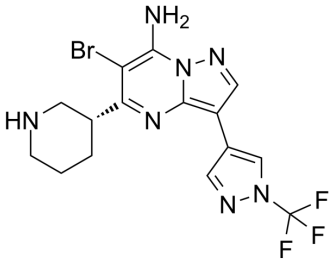
MU380

Cat. No.:	HY-112927
CAS No.:	2109805-78-7
Molecular Formula:	$C_{15}H_{15}BrF_3N_7$
Molecular Weight:	430.23
Target:	Checkpoint Kinase (Chk)
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

MU380 is a potent and selective CHK1 inhibitor that induces apoptosis and has anticancer activity[1].

In Vitro

MU380 (100 nM, 24 h) potently inhibits CHK1 kinase and sensitizes lymphoid tumor cells to gemcitabine[1].
MU380 (400 nM, 24 h) can significantly affect the cell cycle profile and induce the death of dividing and non-dividing primary chronic lymphocytic leukemia lymphocytes[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[1]

Cell Line:	MEC-1and MEC-2 cells
Concentration:	400 nM
Incubation Time:	24 h
Result:	Showed accumulation in S phase as well as reduction in G2/M phase, greatly reduced rate of DNA synthesis, and marked induction of apoptosis (PARP protein cleavage).

Western Blot Analysis[1]

Cell Line:	Chronic lymphocytic leukemia cells
Concentration:	100 nM or 200 nM
Incubation Time:	24 h
Result:	Potently blocked CHK1 activation while enhancing ATR kinase signaling to CHK1 (pS317 and pS345), and resulted in decreased levels of total CDC25A and CDC25C, pY15 CDK1, cyclin B1 and cyclin E1.

In Vivo

MU380 (20 mg/kg, in 20% aqueous Kolliphor solution, every three days from day 14 to day 28) can effectively inhibit tumor growth in NOD-scid IL2Rγ^{null} mice with tumour[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	NOD-scid IL2Rγnull mice[1]

Dosage:	20 mg/kg
Administration:	In 20% aqueous Kolliphor solution, every three days from day 14 to day 28
Result:	Significantly inhibit the growth of tumors and gradually reduce their volume, with an average reduction of about 61%.

REFERENCES

[1]. Miroslav Boudny, et al. Novel CHK1 inhibitor MU380 exhibits significant single-agent activity in TP53-mutated chronic lymphocytic leukemia cells. Haematologica. 2019 Dec;104(12):2443-2455.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA