CDK7-IN-27

Cat. No.: HY-162416

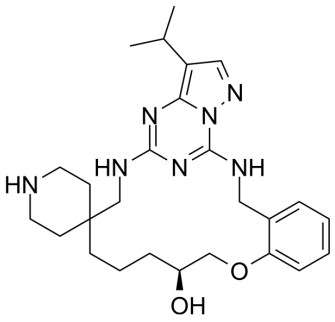
Molecular Formula: $C_{26}H_{37}N_7O_2$

Molecular Weight: 479.62

Target: CDK

Pathway: Cell Cycle/DNA Damage

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

CDK7-IN-27 (Compound 37) is a selective inhibitor for cyclin-dependent kinase 7 (CDK7), with K_i of 3 nM. CDK7-IN-27 arrests the cell cycle at G0/G1 phase[1].

IC_{50} & Target

CDK7	CDK2
3 nM (IC_{50})	19.4 nM (IC_{50})

In Vitro

CDK7-IN-27 (0.04-10 μM, 5 days) inhibits proliferations of MDA-MB-453 cells with EC_{50} of 1.49 μM[1].

CDK7_IN-27 (1 μM, 24 h) exhibits good metabolic stability in liver microsomes in mouse and human , with a half-time of 38.5 min and 34.1 min[1].

CDK7_IN-27 (0-1 μM, 24 h) suppresses the phosphorylation of retinoblastoma (Rb) protein through CDK7 inhibition, and thus arrests the cell cycle at G0/G1 phase[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	MDA-MB-453
Concentration:	0-1 μM
Incubation Time:	24 h
Result:	Inhibited phosphorylation of Rb protein at Ser780, 807/811, and Thr826.

Cell Viability Assay[1]

Cell Line:	MDA-MB-453
Concentration:	0.04-10 μM
Incubation Time:	5 days
Result:	Suppressed the cancer cell proliferation.

REFERENCES

[1]. Niu P, et al., Design and Synthesis of Novel Macrocyclic Derivatives as Potent and Selective Cyclin-Dependent Kinase 7 Inhibitors. J Med Chem. 2024 Apr 8.

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