Data Sheet (Cat.No.T213069)

TargetMol

CDK2-IN-47

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	CDK2-IN-47 is a potent CDK2 inhibitor with an IC50 of 0.21 μM. It demonstrates strong anticancer activity against MCF-7, HCT-116, and MGC-803 cell lines. CDK2-IN-47 effectively induces G1 cell cycle arrest, retinoblastoma protein (Rb) dephosphorylation, and significant apoptosis. It is applicable for research on breast, colorectal, and gastric cancers.
Targets(IC50)	Apoptosis,CDK
In vitro	CDK2-IN-47 (Compound 14c) exhibits potent anticancer activity against the cell lines MCF-7 (IC50 = 0.7 μM), HCT-116 (IC50 = 1.1 μM), and MGC-803 (IC50 = 1.5 μM), while showing significant selectivity towards non-cancerous HEK293 cells (SI = 22.4). At a concentration of 0.7 μM, CDK2-IN-47 induces significant apoptosis in MCF-7 cells after 48 hours and causes G0/G1 phase cell cycle arrest after 24 hours. Moreover, it leads to a marked reduction in Ser807/811 site Rb phosphorylation in MCF-7 cells. Additionally, CDK2-IN-47 demonstrates high metabolic stability in human liver microsomes, with a half-life (t½) of 68.5 minutes and a clearance rate (CLint) of 8.5 mL/min/kg.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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