

Multi-kinase-IN-4

Chemical Properties

CAS No. :

Formula: C₂₁H₂₀ClFN₂O₅

Molecular Weight: 402.91

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	Multi-kinase-IN-4 (compound 5d) is a multi-targeted kinase inhibitor effective against VEGFR2, EGFR, HER2, and CDK2, with IC ₅₀ values of 0.33, 0.22, 0.18, and 2.09 μM, respectively. It shows broad-spectrum anti-cancer activity in HepG2, MCF-7, MDA-231, and HeLa cell lines (IC ₅₀ : 1.94–7.1 μM) and exhibits lower toxicity in WI-38 cells (IC ₅₀ = 40.85 μM). Additionally, it induces apoptosis, causes S-phase cell cycle arrest in HepG2 cells, and holds potential for cancer research [1].
Targets(IC ₅₀)	Apoptosis,EGFR,CDK,Necroptosis,VEGFR
In vitro	Multi-kinase-IN-4 (compound 5d) exhibits cytotoxicity against HepG2, MCF-7, MDA-231, and HeLa cell lines, with IC ₅₀ values of 7.10, 2.48, 1.94, and 6.38 μM, respectively, after 48 hours, but shows lower cytotoxicity towards WI38 cells (IC ₅₀ = 64.29 μM) [1]. In HepG2 cells, 7.1 μM of compound 5d for 24 hours increases S phase cells by 9.23%, while reducing G0-G1 and G2/M phase populations by 4.50% and 4.73%, respectively [1]. Additionally, at this concentration and duration, it induces early apoptosis (7.51%), late apoptosis (3.45%), and necrosis (3.08%) in HepG2 cells [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4819 mL	12.4097 mL	24.8194 mL
5 mM	0.4964 mL	2.4819 mL	4.9639 mL
10 mM	0.2482 mL	1.241 mL	2.4819 mL
50 mM	0.0496 mL	0.2482 mL	0.4964 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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