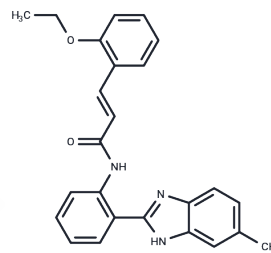


Tubulin polymerization-IN-26

Chemical Properties

CAS No. :	2490291-68-2
Formula:	C ₂₅ H ₂₃ N ₃ O ₂
Molecular Weight:	397.47
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Tubulin polymerization-IN-26 (compound 12h) is a chemical compound that inhibits the polymerization of microtubulin by binding to the colchicine binding site, with an IC ₅₀ value of 4.64 μM. It can induce apoptosis and inhibit cell metastasis, making it a valuable compound for researching lung cancer [1].
Targets(IC ₅₀)	Apoptosis,Others,Microtubule Associated
In vitro	Tubulin polymerization-IN-26 (compound 12h), at concentrations of 0.27–30 μM for 48 hours, demonstrates robust cytotoxicity against various cancer cell lines including lung, triple-negative breast, melanoma, and kidney cells by inducing apoptosis, causing G ₂ /M phase cell cycle arrest, and inhibiting microtubule polymerization. At 0.1, 0.25, and 0.5 μM over 24 hours, it promotes dose-dependent apoptosis via enhanced ROS production, increasing the G ₂ /M phase cell percentage from 17.6% to 50.3% while decreasing G ₀ /G ₁ phase cells from 41.1% to 4.9%. The compound's cytotoxicity is quantified by IC ₅₀ values: 0.29 μM (A549), 1.48 μM (MDA-MB-231), 1.25 μM (B16-F10), 0.42 μM (BT-474), 0.49 μM (4 T1), and 1.58 μM (NRK-52E), underscoring its potential as an effective anti-cancer agent.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5159 mL	12.5796 mL	25.1591 mL
5 mM	0.5032 mL	2.5159 mL	5.0318 mL
10 mM	0.2516 mL	1.258 mL	2.5159 mL
50 mM	0.0503 mL	0.2516 mL	0.5032 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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