

## Tubulin inhibitor 14

## Chemical Properties

CAS No. :

Formula: C<sub>15</sub>H<sub>9</sub>F<sub>2</sub>NO

Molecular Weight: 257.23

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	Tubulin inhibitor 14 is a potent inhibitor of NQO2 (quinone oxidoreductase 2) with an IC <sub>50</sub> of 1.0 μM, which also inhibits tubulin polymerization and the formation of endothelial cell capillary-like tubes. As a microtubule destabilizer, Tubulin inhibitor 14 has potential tumor-selective, anti-angiogenic, and vascular-destructive properties [1].
Targets(IC <sub>50</sub> )	Apoptosis,Others,Microtubule Associated
In vitro	Tubulin inhibitor 14 (compound 4), across varying concentrations (0-20 μM) and incubation times (24-96 hours), significantly impedes the proliferation of various cancer cell lines (MDA-MB-231, HepG2, SNU423, A549, HCT116) by leading to mechanisms such as G <sub>2</sub> /M cell cycle arrest in HepG2 cells at 1-5 μM for 24 or 48 hours, and inducing apoptosis in SNU423 cells at 0.5-1 μM over 24 hours. In addition, at a concentration of 0.5-1 μM for 24 hours, it disrupts the cytoskeleton network in endothelial cells, causing morphological changes. Efficacy is demonstrated through distinct assays indicating significant growth inhibition with differential IC <sub>50</sub> values noted for each cell line, G <sub>2</sub> /M cell cycle arrest in HepG2 cells, apoptosis induction in SNU423 cells, and cytoskeleton disruption in HUVECs, evidencing the compound's potency across a spectrum of cellular activities related to cancer progression.

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8876 mL	19.4379 mL	38.8757 mL
5 mM	0.7775 mL	3.8876 mL	7.7751 mL
10 mM	0.3888 mL	1.9438 mL	3.8876 mL
50 mM	0.0778 mL	0.3888 mL	0.7775 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**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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