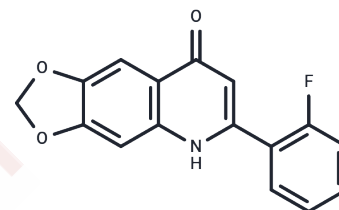


## CHM-1

## Chemical Properties

CAS No. :	154554-41-3
Formula:	C <sub>16</sub> H <sub>10</sub> FNO <sub>3</sub>
Molecular Weight:	283.25
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	CHM-1 is an inducer of apoptosis, and displays potent antitumor ability in human hepatocellular carcinoma by activation of Cdc2 kinase activity. CHM-1 inhibits tubulin polymerization in vitro and in vivo.
Targets(IC50)	Apoptosis, Microtubule Associated
In vitro	CHM-1 (0-10 μM; 24 hours) significantly increased the binding of cyclin B1 to Cdc2 and induced change in expressed and phosphorylated status of G2-M regulators in HA22T cells. CHM-1 (0-100 μM; 24 hours) induced significant concentration-dependent growth inhibition in HA22T, Hep3B, and HepG2 cells, with the most potent effects observed in HA22T cells with an IC50 of 0.75 μM[3].
In vivo	In male severe combined immunodeficient mice, CHM-1 (10 mg/kg; i.p.) induced inhibition of HA22T tumor growth in a dose-dependent manner[3].

## Solubility Information

Solubility	DMSO: 1.42 mg/mL (5.01 mM), Sonication is recommended. H <sub>2</sub> O: < 7.08 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.5305 mL	17.6523 mL	35.3045 mL
5 mM	0.7061 mL	3.5305 mL	7.0609 mL
10 mM	0.353 mL	1.7652 mL	3.5305 mL
50 mM	0.0706 mL	0.353 mL	0.7061 mL

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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.

### Reference

- Liu CW, et al. CHM-1, a novel microtubule-destabilizing agent exhibits antitumor activity via inducing the expression of SIRT2 in human breast cancer cells. *Chem Biol Interact.* 2018 Jun 1;289:98-108.
- Tsai AC, et al. CHM-1, a new vascular targeting agent, induces apoptosis of human umbilical vein endothelial cells via p53-mediated death receptor 5 up-regulation. *J Biol Chem.* 2010 Feb 19;285(8):5497-506.
- Wang SW, et al. CHM-1, a novel synthetic quinolone with potent and selective antimitotic antitumor activity against human hepatocellular carcinoma in vitro and in vivo. *Mol Cancer Ther.* 2008 Feb;7(2):350-60.

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