

GL0388

Chemical Properties

CAS No. :

Formula: C₂₁H₁₇FN₂O

Molecular Weight: 332.37

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	GL0388 is a Bax activator and leads to Bax insertion into mitochondrial membrane that induce Bax-mediated apoptosis. GL0388 inhibits tumor growth of breast cancer xenograft in vivo which also exhibits antiproliferative activities against a variety of cancer cells with IC ₅₀ values of 0.299-1.57 μ M [1].
Targets(IC ₅₀)	Bcl-2 Family,Others
In vitro	GL0388, at concentrations ranging from 0.1 to 10 μ M over 72 hours, effectively inhibits the proliferation of MDA-MB-231 and MCF-7 breast cancer cell lines with IC ₅₀ values of 0.96 μ M and 0.52 μ M, respectively [1]. Additionally, GL0388 demonstrates potent anti-proliferative effects across 60 human tumor cell lines at concentrations between 0.01 to 100 μ M, showing GI ₅₀ values ranging from 0.299 to 1.57 μ M [1]. At 1 to 10 μ M over 48 hours, it significantly enhances the levels of cleaved PARP-1 and cleaved caspase 3 in MDA-MB-231 cells, indicating apoptosis induction [1]. Moreover, at concentrations of 0.1 to 1 μ M for 24 hours, it curbs colony formation and invasion of breast cancer cells [1]. Furthermore, GL0388 promotes the insertion of Bax into the mitochondrial membranes of MDA-MB-231 cells in a concentration-dependent manner within 24 hours at 1 to 10 μ M and elevates cytochrome c levels in the cytosol, suggesting the activation of apoptotic pathways [1].
In vivo	GL0388, administered at doses ranging from 10-20 mg/kg intraperitoneally (i.p.) and 15 mg/kg intratumorally (i.t.), once daily for 10 days, dose-dependently reduced the growth of MDA-MB-231 tumors in female nude mice. The study utilized mice injected with MDA-MB-231 cells, showing significant tumor growth inhibition. Intratumoral administration at 15 mg/kg led to a 55% inhibition rate, demonstrating comparable efficacy to the 20 mg/kg daily intraperitoneal dose.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0087 mL	15.0435 mL	30.087 mL
5 mM	0.6017 mL	3.0087 mL	6.0174 mL
10 mM	0.3009 mL	1.5043 mL	3.0087 mL
50 mM	0.0602 mL	0.3009 mL	0.6017 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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