

GRP78-IN-1

Chemical Properties

CAS No. :

Formula: C₂₁H₂₃F₀₃

Molecular Weight: 342.4

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	GRP78-IN-1 displays interactions with specific residues on the GRP78 protein with a binding energy of -8.07 kcal/mol. This compound possesses potent cytotoxic and anti-proliferative effects on cancer cells, particularly demonstrating promising apoptosis in breast cancer cells and wound healing properties [1].
Targets(IC50)	Apoptosis,Others,HSP
In vitro	GRP78-IN-1 (compound 3i), at concentrations ranging from 0.01 to 100 μ M over 48 hours, exhibits significant cytotoxic effects on various cell lines, with IC ₅₀ values of 2.06, 12.57, 9, 18, 4.9, 2.19, and 62.48 μ M for MCF-1, PANC-1, HCT-116, PC-3, A549, MDA-MB-231, and FR-2 cells, respectively. Furthermore, administration of GRP78-IN-1 at 1, 2, 4, and 6 μ M leads to an increased expression of pro-apoptotic proteins, including Par-4, BAX, and cleaved caspase 9, indicating an induction of the apoptotic cascade. Additionally, at these concentrations, GRP78-IN-1 inhibits the motility of MCF-7 and A549 cells in a dose-dependent manner, underscoring its potential as a therapeutic agent by affecting both cell viability and migration.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9206 mL	14.6028 mL	29.2056 mL
5 mM	0.5841 mL	2.9206 mL	5.8411 mL
10 mM	0.2921 mL	1.4603 mL	2.9206 mL
50 mM	0.0584 mL	0.2921 mL	0.5841 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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