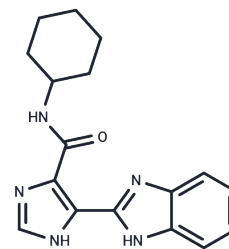


Autophagy-IN-2

Chemical Properties

CAS No. :	2755454-90-9
Formula:	C ₁₇ H ₁₉ N ₅ O
Molecular Weight:	309.37
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	Autophagy-IN-2 (Compound 7h) is an autophagic flux inhibitor that induces cancer cell apoptosis, making it a valuable agent for triple-negative breast cancer research [1].
Targets(IC50)	Apoptosis,Others,Autophagy
In vitro	Autophagy-IN-2 (Compound 7h), across a concentration range of 0-200 μ M for 48 hours, exhibits anti-viability effects on various cancer cell lines, as evidenced by its IC 50 values across a panel including MDA-MB-231, MDA-MB-468, and others. At lower concentrations (0-20 μ M) and varying time points up to 48 hours, this compound disrupts autophagic flux and DNA repair mechanisms by decreasing chromatin ubiquitination, linked to a p62-dependent process. Additionally, Autophagy-IN-2 triggers cell cycle arrest in the S-phase and initiates mitochondrial-dependent intrinsic apoptosis. Western blot analysis reveals a dose and time-dependent increase in LC3B-II, p62 accumulation, and DNA damage markers in treated TNBC cells, alongside modifications in cell cycle and apoptosis-related proteins. Cell cycle and apoptosis assays further confirm the compound's ability to induce S-phase arrest and significantly enhance apoptosis, particularly late-phase, in a dose-dependent manner in TNBC cells.
In vivo	Autophagy-IN-2 (Compound 7h), administered intraperitoneally (i.p.) at 5 and 15 mg/kg every three days for three weeks, dose-dependently suppressed tumor growth in six-week-old female NOD/SCID mice with MDA-MB-231 xenografts. This treatment inhibited human TNBC tumor growth and increased the expression of LC3B-II, p62, γ H2AX, and PARP in a concentration-dependent manner.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2324 mL	16.1619 mL	32.3238 mL
5 mM	0.6465 mL	3.2324 mL	6.4648 mL
10 mM	0.3232 mL	1.6162 mL	3.2324 mL
50 mM	0.0646 mL	0.3232 mL	0.6465 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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