

## Autophagy inducer 3

## Chemical Properties

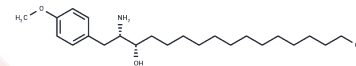
CAS No. : 2691054-63-2

Formula: C<sub>24</sub>H<sub>43</sub>NO<sub>2</sub>

Molecular Weight: 377.6

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 Inducer 3 is a chemical compound that exhibits autophagy-induced activity, specifically inducing robust autophagic cell death in various cancer cells while sparing normal cells. This compound induces lethal autophagy through the formation of distinct autophagic vacuoles, LC3 puncta formation, and upregulation of signature autophagy markers such as Beclin and Atg family proteins [1].
Targets(IC50)	Others, Autophagy, ATG
In vitro	Autophagy inducer 3 (compound 26b), at a concentration of 10 μM over 48 hours, significantly reduces cell growth across various breast, lung, and colon cancer cell lines. Its antiproliferative effects are observed in specific colon cancer cell lines including COLO-205, LOVO, HT-29, DLD-1, SW48, and SW-620, with IC50 values ranging from 1.86 μM to 4.46 μM, while demonstrating minimal cytotoxicity in normal human colon fibroblasts (CCD-18Co) with an IC50 exceeding 10 μM. Notably, at 7.5 μM for 18 hours, this compound triggers non-apoptotic cell death in DLD-1 cells, indicated by cellular granularity via vacuole formation, an increase in Annexin-V positive cells, PARP cleavage, and a significant upregulation of core autophagy markers including Beclin-1, Atg3, Atg5, and Atg7. Additionally, cell proliferation assays reveal that at a 10 μM dose, this compound effectively inhibits cell growth in diverse cancer cell lines, including MCF-7, MDA-MB-231, DLD-1, HT-29, A549, and NCI-H358, with inhibition rates between 89.28% and 97.66%. In colon cancer DLD-1 cells, a 7.5 μM concentration notably promotes intracytoplasmic vacuole accumulation and robustly induces classical autophagy marker expression.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.6483 mL	13.2415 mL	26.4831 mL
5 mM	0.5297 mL	2.6483 mL	5.2966 mL
10 mM	0.2648 mL	1.3242 mL	2.6483 mL
50 mM	0.053 mL	0.2648 mL	0.5297 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.

**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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