

ABTL-0812

Chemical Properties

CAS No. : 57818-44-7

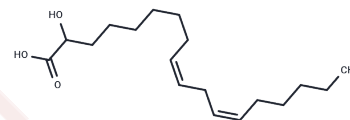
Formula: C₁₈H₃₂O₃

Molecular Weight: 296.44

High Volatility

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	ABTL-0812 (α -Hydroxylinoleic acid) is a first-in-class small-molecule compound that induces endoplasmic reticulum stress-mediated autophagy, leading to cancer cell death, ABTL-0812 is extensively applied in oncology research to investigate ER stress signaling, autophagic cell death pathways, and novel anticancer mechanisms with translational therapeutic potential.
Targets(IC50)	Others
In vitro	In squamous Non-Small Cell Lung Cancer (NSCLC) H157 cells, treatment with ABTL-0812 (10-100 μ M) for 48 hours inhibited cell viability by increasing intracellular dihydroceramide levels and triggering autophagy [1].
In vivo	In athymic nude mice bearing human pancreatic (MiaPaca2) and lung (A549) cancer xenografts, oral administration of ABTL-0812 (120 mg/kg, 5 times per week) for 33 days induced ER stress within tumor tissues. This was characterized by the upregulated expression of ER stress markers ATF4 and HSPA5 (BiP/GRP78) in the treated group compared to controls [1].

Solubility Information

Solubility	DMSO: 72 mg/mL (242.88 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3734 mL	16.8668 mL	33.7336 mL
5 mM	0.6747 mL	3.3734 mL	6.7467 mL
10 mM	0.3373 mL	1.6867 mL	3.3734 mL
50 mM	0.0675 mL	0.3373 mL	0.6747 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.

Reference

Muñoz-Guardiola P, et al. The anti-cancer drug ABTL0812 induces ER stress-mediated cytotoxic autophagy by increasing dihydroceramide levels in cancer cells. *Autophagy*. 2020 May 13.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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