ABTL-0812

Catalog No.C14361 Batch:C1436103

Product Datasheet

Technical Data

Formula	$C_{18}H_{32}O_3$					
Molecular Weight	296.44	**CAS No.**	57818-44-7			
Solubility (25°C)*	In vitro					
	In vivo (Add solvents to the product individually and in order)	Injection	Clear solution	5%DMSO [1]→ 40%PEG300 [2]→ 5%Tween80 [3]→ 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	5.000mg/ml (16.87mM)	Taking the 1 mL working solution as an example, add 50 μL of 100 mg/ml clarified DMSO stock solution to 400 μL of PEG300, mix evenly to clarify it; add 50 μL of Tween80 to the above system, mix evenly to clarify; then continue to add 500 μL of ddH2O to adjust the volume to 1 mL. The mixed solution should be used immediately for optimal results.
			Clear solution	5% DMSO [1]→ 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	2.500mg/ml (8.43mM)	Taking the 1 mL working solution as an example, add 50 μL of 50 mg/ml clear DMSO stock solution to 950 μL of corn oil and mix evenly. The mixed solution should be used immediately for optimal results.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Biological Activity

Description	ABTL0812 (α-Hydroxylinoleic acid, LP-10218, SCLN-0812) inhibits **Akt/mTOR** axis by inducing the overexpression of TRIB3 and activating **autophagy** in lung squamous carcinoma cell lines. ABTL0812 also induces **AMPK** activation and **ROS** accumulation.
Targets	Akt [1] / mTOR [1]
In vitro	ABTL0812 inhibits Akt/mTOR axis by inducing the overexpression of TRIB3 and activating autophagy in lung squamous carcinoma cell lines. Furthermore, treatment with ABTL0812 also induces AMPK activation and ROS accumulation. Moreover, combination of ABTL0812 with chemotherapy markedly increases the therapeutic effect of chemotherapy without increasing toxicity. Combination of ABTL0812 and chemotherapy induces nonapoptotic cell death mediated by TRIB3 activation and autophagy induction.[1]
In vivo	ABTL0812 enhances antitumor activity both in adenocarcinomas and squamous lung xenografts.[1]
Density	1.0 g/mL

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  Human adenocarcinoma cell lines (A549, NCI-H1975), squamous-cell carcinoma (NCI-H520, NCI-H157)
- **Concentrations**
  0–200 μM
- **Incubation Time**
  72 h
- **Method**
  Briefly, for studies, subconfluent cultures of adenocarcinoma lung cancer cells are incubated for 72 hr in the presence of an increasing concentration of ABTL0812 (0–200 μM), or the combination of increasing doses with ABTL0812 20 μM. For other studies, subconfluent cultures of adenocarcinoma and squamous lung cancer cell lines are incubated for 48 hr in the presence of an increasing concentration or the combination of increasing doses with sub-IC50 concentrations of ABTL0812 (5–30 μM).

Animal Study:[1]

- **Animal Models**
  5-week-old female athymic nude Foxn 1nu nu/nu mice
- **Dosages**
  30 mg/kg, 120 mg/kg
- **Administration**
  Oral gavage

References

https://pubmed.ncbi.nlm.nih.gov/31943158/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

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