Product Datasheet

Technical Data

Formula	$C_{15}H_{17}ClN_2OS$					
Molecular Weight	308.83	**CAS No.**	932986-18-0			
Solubility (25°C)*	In vitro	DMSO	61 mg/mL (197.51 mM)			
		Ethanol	61 mg/mL (197.51 mM)			
		Water	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.
		Injection	Clear solution	5%DMSO [1]→ Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	3.050mg/ml (9.88mM)	Taking the 1 mL working solution as an example, add 50 μL of 61 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.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.2380 mL	16.1901 mL	32.3803 mL
5 mM	0.6476 mL	3.2380 mL	6.4761 mL
10 mM	0.3238 mL	1.6190 mL	3.2380 mL
50 mM	0.0648 mL	0.3238 mL	0.6476 mL

Biological Activity

Description	Azoramide is a small-molecule modulator of the **unfolded protein response (UPR)**. It improves ER protein-folding ability and activates ER chaperone capacity to protect cells against ER stress.
Targets	UPR [1]
In vitro	Azoramide may have the protective effects of enhancing chaperone expression and reducing protein synthesis without inducing cytotoxicity and apoptosis. This compound may require the presence of intact IRE1 and PERK branches of the UPR to fully increase chaperone capacity. It is found to be a kind of compound with the dual property of not only boosting ER folding acutely but also activating ER chaperone capacity chronically to promote ER homeostasis. Its treatment potently protects cells against chemically-induced ER stress conditions. This chemical preserves beta cell function and survival during metabolic ER stress. Its pretreatment does not impair ER function as part of its initial action. This treatment leads to increased SERCA expression, resulting in enhanced retention of Ca+2 within the ER. It interacts with UPR pathways to promote resolution of ER stress and improve ER function[1].
In vivo	Azoramide improves glucose homeostasis in mice with genetic obesity and diet-induced obesity. Remarkably, this compound treatment significantly improves insulin sensitivity and glucose tolerance and beta cell function in obese mice in multiple preclinical models[1].

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  INS1 cells
- **Concentrations**
  20 μM
- **Incubation Time**
  60 h
- **Method**
  INS1 cells are treated with 25 mM Glucose and 500 μM Palmitate (G/P) in the absence or presence of 20 μM azoramide for 60 hours. At the end of the incubation, viability is measured using the CellTiter-Glo cell viability assay system.

Animal Study:[1]

- **Animal Models**
  ob/ob mice
- **Dosages**
  150mg/kg
- **Administration**
  oral

References

https://pubmed.ncbi.nlm.nih.gov/26084805/

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.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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