FIN56

Catalog No.C13296 Batch:C1329603

Product Datasheet

Technical Data

Formula	$C_{25}H_{31}N_3O_5S_2$					
Molecular Weight	517.66	**CAS No.**	1083162-61-1			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (193.17 mM)			
		Water	Insoluble			
		Ethanol	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	2%DMSO [1]→ 40%PEG300 [2]→ 5%TWEEN80 [3]→ 53%dH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.280mg/ml (0.54mM)	Taking the 1 mL working solution as an example, add 20 μL of 14 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 530 μL of ddH2O to adjust the volume to 1 mL. 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

Biological Activity

Description	FIN56 is a specific inducer of **ferroptosis** .
Targets	Ferroptosis [1]
In vitro	FIN56 is a specific inducer of ferroptosis. The mechanism involves two distinct pathways: one pathway is degradation of GPX4, which requires the enzymatic activity of acetyl-CoA carboxylase; the other pathway is activation of squalene synthase, which leads to coenzyme Q10 depletion, in a manner independent of GPX4 degradation[1].

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  HT-1080 cells
- **Concentrations**
  5 μM
- **Incubation Time**
  10 h
- **Method**
  500,000 HT-1080 cells are seeded in a 10-cm dish. Cells are grown at 37 °C for 16 h. On the day of the analysis, cells are cotreated with 100 μM α-tocopherol and either vehicle (DMSO) or a ferroptosis inducer (10 μM erastin, 0.5 μM (1S, 3R)-RSL3, or 5 μM FIN56) and incubated for 10 h. Cells are then trypsinized, pelleted, washed once with 400 μL of ice-cold PBS containing 1 mM EDTA, and sonicated. After the cell debris have been pelleted and removed, both oxidized and reduced glutathione in 120 μL of sample is quantified in technical triplicates. The glutathione quantity is normalized to the protein concentration measured via Bradford assay.

References

https://pubmed.ncbi.nlm.nih.gov/27159577/

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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