Product Datasheet

Technical Data

Formula	$C_{17}H_{22}N_4O_3S_2$					
Molecular Weight	394.51	**CAS No.**	790702-57-7			
Solubility (25°C)*	In vitro	DMSO	79 mg/mL (200.24 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	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.	3.950mg/ml (10.01mM)	Taking the 1 mL working solution as an example, add 50 μL of 79 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.	0.490mg/ml (1.24mM)	Taking the 1 mL working solution as an example, add 50 μL of 9.8 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	2.5348 mL	12.6739 mL	25.3479 mL
5 mM	0.5070 mL	2.5348 mL	5.0696 mL
10 mM	0.2535 mL	1.2674 mL	2.5348 mL
50 mM	0.0507 mL	0.2535 mL	0.5070 mL

Biological Activity

Description	NGI-1 is an aminobenzamide-sulfonamide compound that targets both **oligosaccharyltransferase (OST)** isoforms and therefore may exhibit antiviral activity against flaviviruses.
Targets	oligosaccharyltransferase (OST) [1]
In vitro	NGI-1 is a reversible catalytic subunit inhibitor of the oligosaccharyltransferase (OST) that has higher specificity for STT3B compared to STT3A (STT: OST catalytic subunit). In non-small cell lung cancer cells this compound blocks cell surface localization and signaling of the EGFR glycoprotein, but selectively arrests proliferation in only those cell lines that are dependent on EGFR (or FGFR) for survival. In these cell lines OST inhibition causes cell cycle arrest accompanied by induction of p21, autofluorescence, and changes in cell morphology; all hallmarks of senescence[1]. It exhibits broad antiviral activity against multiple flaviviruses. This inhibitor blocks viral RNA replication independent of inhibition of the catalytic activity of the OST complex [2].

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  PC9 and A549 cells
- **Concentrations**
  10 μM
- **Incubation Time**
  24 h
- **Method**
  PC9 and A549 cells were cultured in 6-well plates in serum-containing medium and treated with or without 10 μM NGI-1 for 24 hours.

References

https://pubmed.ncbi.nlm.nih.gov/27694802/ https://pubmed.ncbi.nlm.nih.gov/29241533/

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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