THAL-SNS-032

Catalog No.C13835 Batch:C1383503

Product Datasheet

Technical Data

Formula	$C_{40}H_{52}N_8O_{10}S_2$					
Molecular Weight	869.02	**CAS No.**	2139287-33-3			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (115.07 mM)			
		Ethanol	30 mg/mL (34.52 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] → 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 (5.75mM)	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.	0.625mg/ml (0.72mM)	Taking the 1 mL working solution as an example, add 50 μL of 12.5 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	1.1507 mL	5.7536 mL	11.5072 mL
5 mM	0.2301 mL	1.1507 mL	2.3014 mL
10 mM	0.1151 mL	0.5754 mL	1.1507 mL
50 mM	0.0230 mL	0.1151 mL	0.2301 mL

Biological Activity

Description	THAL-SNS-032 is a selective **Cyclin-dependent kinase 9 (CDK9)** degrader PROTAC consisting of a CDK-binding SNS-032 ligand linked to that binds the **E3 ubiquitin ligase Cereblon (CRBN)**.
Targets	CDK9 [1] / CRBN [1]
In vitro	THAL-SNS-032 is a selective CDK9 degrader consisting of a CDK-binding SNS-032 ligand linked to which binds the E3 ubiquitin ligase Cereblon (CRBN). This compound induces rapid degradation of CDK9 without affecting the levels of other SNS-032 targets. The transcriptional changes elicited by this chemical are more like those caused by NVP-2 than those induced by SNS-032. Strikingly, compound washout does not significantly reduce levels of THAL-SNS-032-induced apoptosis, suggesting that CDK9 degradation had prolonged cytotoxic effects compared to CDK9 inhibition.[1]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  Wildtype MOLT4 cells, CRBN−/− MOLT4 cells
- **Concentrations**
  250nM
- **Incubation Time**
  6 h, 72 h
- **Method**
  Proliferation assays are performed by treating MOLT4 and CRBN−/− MOLT4 cells with THAL-SNS-032 at concentrations indicated for 72 hours. Anti-proliferative effects of compounds are assessed using Cell Titer Glo assay kit. IC50s are determined using Graphpad Prism non-linear regression curve fit. To determine the effect of washout, MOLT4 and CRBN−/− MOLT4 cells are treated with 250nM of this compound. After 6 hours, this chemical is washed from cells by washing cells with media three times where indicated. Cells are allowed to grow for another 66 hours (72-hour total) and assayed for anti-proliferation using Cell Titer Glo assay kit.

References

https://pubmed.ncbi.nlm.nih.gov/29251720/

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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