Product Datasheet

Technical Data

Formula	$C_{25}H_{24}N_2O_4$					
Molecular Weight	416.47	**CAS No.**	1197824-15-9			
Solubility (25°C)*	In vitro	DMSO	83 mg/mL (199.29 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.	4.150mg/ml (9.96mM)	Taking the 1 mL working solution as an example, add 50 μL of 83 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.	0.510mg/ml (1.22mM)	Taking the 1 mL working solution as an example, add 50 μL of 10.2 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	2.4011 mL	12.0057 mL	24.0113 mL
5 mM	0.4802 mL	2.4011 mL	4.8023 mL
10 mM	0.2401 mL	1.2006 mL	2.4011 mL
50 mM	0.0480 mL	0.2401 mL	0.4802 mL

Biological Activity

Description	EN4, a covalent ligand that targets cysteine 171 (C171) of **MYC**, is selective for **c-MYC** over N-MYC and L-MYC. This compound inhibits MYC transcriptional activity, downregulates MYC targets, and impairs tumorigenesis.
Targets	MYC [1]
In vitro	EN4 directly targets MYC in cells, reduces MYC and MAX thermal stability, inhibits MYC transcriptional activity, downregulates multiple MYC transcriptional targets, and impairs tumorigenesis. This compound treatment significantly impairs 231MFP breast cancer cell proliferation in a dose- and time-dependent manner. It impairs the cell survival of MYC transformed mammary epithelial MCF10A cells, but not parental MCF10A cells that are not dependent on MYC.[1]
In vivo	EN4 treatment initiated after establishment of a 231MFP breast tumor xenograft in immune-deficient mice also significantly attenuates tumor growth in vivo.[1]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  231MFP, MDA-MB-231, HEK293T and MCF10A cells
- **Concentrations**
  50 μM
- **Incubation Time**
  24 h
- **Method**
  231MFP cells are seeded into 6 cm dishes and cells are treated with DMSO vehicle or EN4 (50 μM) for 24 h. Cells are harvested by scraping and RNA is isolated using Qiagen RNeasy mini kit with Qiagen DNase max kit to remove any DNA contamination. mRNA is enriched for using Oligo dT beads from the KAPA mRNA Capture Kit.

Animal Study:[1]

- **Animal Models**
  C.B17 SCID female mice (6-8 weeks old)
- **Dosages**
  50 mg/kg
- **Administration**
  IP

References

https://pubmed.ncbi.nlm.nih.gov/32966806/

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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