GMB-475

Catalog No.C13752 Batch:C1375203

Product Datasheet

Technical Data

Formula	$C_{43}H_{46}F_3N_7O_7S$					
Molecular Weight	861.93	**CAS No.**	2490599-18-1			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (116.01 mM)			
		Ethanol	100 mg/mL (116.01 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 (5.80mM)	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.	0.830mg/ml (0.96mM)	Taking the 1 mL working solution as an example, add 50 μL of 16.6 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	1.1602 mL	5.8009 mL	11.6019 mL
5 mM	0.2320 mL	1.1602 mL	2.3204 mL
10 mM	0.1160 mL	0.5801 mL	1.1602 mL
50 mM	0.0232 mL	0.1160 mL	0.2320 mL

Biological Activity

Description	GMB-475 is a proteolysis-targeting chimera (PROTAC) that allosterically targets **BCR-ABL1** protein and recruit **the E3 ligase** Von Hippel-Lindau (VHL), resulting in ubiquitination and subsequent degradation of the oncogenic fusion protein.
Targets	BCR-ABL1 [1] / E3 ligase [1]
In vitro	GMB-475 induces rapid proteasomal degradation and inhibition of downstream biomarkers, such as STAT5 in both human CML K562 cells and murine Ba/F3 cells expressing BCR-ABL1. This compound inhibits the proliferation of certain clinically relevant BCR-ABL1 kinase domain point mutants and further sensitizes Ba/F3 BCR-ABL1 cells to inhibition, while demonstrating no toxicity toward Ba/F3 parental cells.[1]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  K562 cell line, Ba/F3 murine cell lines (Ba/F3 BCR-ABL1 cells, Ba/F3 parental cells)
- **Concentrations**
  0.001-0.300 μM, 5 μM
- **Incubation Time**
  3 days, 8 h
- **Method**
  Cell viability assay: Cell lines and patient samples are exposed to dose ranges of GMB-475 (0.001-0.300 μM) and incubated for 3 days at 37°C, 5% CO2 and subjected to a CellTiter 96 AQueous One solution cell proliferation assay. Reverse phase protein arrays (RPPA): K562 cells are treated with DMSO, this compound (5 μM) for 8 h in duplicate, washed twice with PBS and lysed in RPPA lysis buffer.

References

https://pubmed.ncbi.nlm.nih.gov/31311809/

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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