Product Datasheet

Technical Data

Formula						
Molecular Weight		**CAS No.**	128446-36-6			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL			
		Water	100 mg/mL			
		Ethanol	100 mg/mL			
	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.

* <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.)

Biological Activity

Description	Methyl-β-cyclodextrin (MβCD) is a **cholesterol**-removing agent mainly used for **lipid raft** disruption. Methyl-β-cyclodextrin induces caspase-dependent apoptosis in PEL cells and inhibits the growth and invasion of PEL cells without apparent adverse effects, suggesting the potential effective antitumor activities.
Targets	cholesterol [1] / lipid raft [1]
In vitro	Methyl-β-cyclodextrin (MβCD) inhibits SDF-1α-induced platelet aggregation and Akt phosphorylation by raft disruption.[2]
In vivo	In a Primary effusion lymphoma (PEL) xenograft mouse model, Methyl-β-cyclodextrin (MβCD) significantly inhibits the growth and invasion of PEL cells without apparent adverse effects. Mice treated with this compound appear to be healthy, whereas non-treated mice have a distended abdominal region. The body weights of control are significantly higher than those of the treated mice. It also results in a significantly lower volume of ascites than that of non-treated mice.[1]

Protocol (from reference)

Cell Assay:[2]

- **Cell lines**
  Platelets
- **Concentrations**
  2%
- **Incubation Time**
  15 min
- **Method**
  Freshly isolated human platelets are incubated with Methyl-β-cyclodextrin (MβCD) and SDF-1α, then centrifuged for 1 min at 3000 rpm. The resulting pellet is resuspended and boiled in Laemmli sample buffer containing phosphatase inhibitor cocktails 2 and 3. Phosphorylations of Akt (Ser473) is detected by western blotting. Platelet aggregation is measured as the optical density of PRP during aggregation using a platelet aggregometer, with the platelet-poor plasma 100% standard for change in optical density.

References

https://pubmed.ncbi.nlm.nih.gov/25446086/
https://pubmed.ncbi.nlm.nih.gov/28072855/

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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