U-18666A

Catalog No.C14401 Batch:C1440103

Product Datasheet

Technical Data

Formula	$C_{25}H_{42}ClNO_2$					
Molecular Weight	424.06	**CAS No.**	3039-71-2			
Solubility (25°C)*	In vitro	DMSO	85 mg/mL (200.44 mM)			
		Ethanol	85 mg/mL (200.44 mM)			
		Water	43 mg/mL (101.4 mM)			
	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.	0.250mg/ml (0.59mM)	Taking the 1 mL working solution as an example, add 50 μL of 5 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.	0.250mg/ml (0.59mM)	Taking the 1 mL working solution as an example, add 50 μL of 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

Biological Activity

Description	U18666A (U18) is an inhibitor of **intra-cellular cholesterol transport** that inhibits dengue virus entry and replication.
In vitro	Viral particles are trapped in the Lamp-1 positive late endosome/lysosome compartment when cells are treated with U18666A. In addition, viral replication is also affected by this compound treatment. An additive anti-viral effect is found when C75, a fatty acid synthase inhibitor, is used in combination with this chemical, suggesting the role of cholesterol and fatty acid in DENV. [1]
In vivo	When U18666A is administered to cats experimentally infected with type I FIPV, the development of FIP may be suppressed compared with the control group. However, the number of animals with FIP is too low to establish anti-viral effect of this compound in cats. Two of the five control cats administered PBS alone develops FIP. Four of the five cats administered this chemical develops no signs of FIP. One cat that temporarily developed fever, has no other clinical symptoms, and no gross lesion is noted on an autopsy after the end of the experiment. The FIPV gene is detected intermittently in feces and saliva regardless of the development of FIP or administration of this compound.[2]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  BHK21 cells
- **Concentrations**
  6.15 μM
- **Incubation Time**
  48 h
- **Method**
  BHK21 cells are seeded with a cell density of 2×10^4 cells/well into a 96 well plate 1 day before infection. NGC virus is added at a multiplicity of infection (MOI) of 1 in the presence of 2% FBS and is harvested from the cell supernatant 2 days post infection. Viral titer is quantified by plaque assay. For time of addition experiment of U18666A, cells are pretreated for 16 h with this compound, before virus is added to the cells (16 h pretreatment) or cells are pretreated for 16 h and this compound remained throughout the 48 h of infection (throughout). Alternatively, this compound is added only during the 1st hour of infection where most of the entry and fusion occurred (1 h entry), or after the 1st hour of infection (after entry) for the remaining of the infection.

Animal Study:[2]

- **Animal Models**
  SPF cats
- **Dosages**
  2.5 mg/kg, 1.25 mg/kg
- **Administration**
  SC

References

https://pubmed.ncbi.nlm.nih.gov/22146564/ https://pubmed.ncbi.nlm.nih.gov/31963705/

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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