Product Datasheet

Technical Data

Formula	$C_{38}H_{52}N_6O_7$					
Molecular Weight	704.86	**CAS No.**	198904-31-3			
Solubility (25°C)*	In vitro	DMSO	60 mg/mL (85.12 mM)			
		Ethanol	24 mg/mL (34.04 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.	3mg/ml (4.26mM)	Taking the 1 mL working solution as an example, add 50 μL of 60 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.	0.43mg/ml (0.61mM)	Taking the 1 mL working solution as an example, add 50 μL of 8.6 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	1.4187 mL	7.0936 mL	14.1872 mL
5 mM	0.2837 mL	1.4187 mL	2.8374 mL
10 mM	0.1419 mL	0.7094 mL	1.4187 mL
50 mM	0.0284 mL	0.1419 mL	0.2837 mL

Biological Activity

Description	Atazanavir (Latazanavir, Zrivada, Reyataz, BMS-232632) is an azapeptide and **HIV-protease** inhibitor that is used in the treatment of HIV infections and AIDS in combination with other anti-HIV agents. This compound is a substrate and inhibitor of **cytochrome P450 isozyme 3A (CYP3A4)** and an inhibitor and inducer of **P-glycoprotein**.
Targets	HIV protease [1]
In vitro	Atazanavir has potent in vitro activity with 50 and 90% effective concentrations(EC50) of 2-5 nM and 9-15 nM respectively against wild type virus[1]. This compound is able to potently induce endoplasmic reticulum (ER) stress response in malignant glioma cells, as indicated by elevated levels of GRP78 and CHOP, and activation of caspase-4, which leads to cell death[3] .
In vivo	Atazanavir has excellent oral bioavailability in the range of 60-70%[1].

Protocol (from reference)

Cell Assay:[3]

- **Cell lines**
  The malignant glioma cell lines U251, LN229 and T98G
- **Concentrations**
  0-100 μM
- **Incubation Time**
  48 h
- **Method**
  U251, T98G, and LN229 glioblastoma cell lines are exposed to increasing concentrations of nelfinavir and atazanavir. Cells cultured in 96-well plates are treated with drugs for 48 h, and cell growth and survival are determined by conventional MTT assay.

Animal Study:[2]

- **Animal Models**
  The WT mice (FVB/NTac strain), TKO mice (FVB/N7 strain)
- **Dosages**
  10 mg/kg
- **Administration**
  i.v.

References

https://pubmed.ncbi.nlm.nih.gov/12225250/ https://pubmed.ncbi.nlm.nih.gov/24379203/ https://pubmed.ncbi.nlm.nih.gov/18006837/

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.

EU Headquarters
Gajeva ulica 28, HR-10000 Zagreb, Croatia

US Headquarters
12222 Merit Dr STE 130 Dallas, Texas, 75251

UK Headquarters
121 ABILITY HOUSE, BROOKER ROAD, EN9 1JH, ESSEX

Orders: Sales@capsidbio.com
Enquiries: info@capsidbio.com
www.capsidbio.com