Darunavir Ethanolate

Catalog No.C07928 Batch:C0792803

Product Datasheet

Technical Data

Formula	$C_{27}H_{37}N_3O_7S.C_2H_5OH$					
Molecular Weight	593.73	**CAS No.**	635728-49-3			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (168.42 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.	5.000mg/ml (8.42mM)	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 (1.40mM)	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	1.6843 mL	8.4213 mL	16.8427 mL
5 mM	0.3369 mL	1.6843 mL	3.3685 mL
10 mM	0.1684 mL	0.8421 mL	1.6843 mL
50 mM	0.0337 mL	0.1684 mL	0.3369 mL

Biological Activity

Description	Darunavir Ethanolate (TMC-114, UIC 94017) is a nonpeptidic **HIV protease** inhibitor, used to treat HIV infection.
Targets	HIV protease [1]
In vitro	Darunavir displays potent activity against HIV strains resistant to other available protease inhibitor. Darunavir inhibits P-glycoprotein-mediated efflux of calcein-acetoxymethyl ester in L-MDR1 cells with the inhibitory potency of 121 mM. [1] Darunavir is a protein inhibits that mimics the phenylalanine sequences at positions 167 and 168 of the gag-pol polypeptide and binds to the active sites of the HIV protease, thereby inhibiting its activity. Darunavir blocks the infectivity and replication of each of the HIV-1 variants at concentrations up to 5 μM. Darunavir shows strong ARV activity against a selected panel of 19 recombinant clinical isolates carrying multiple protease mutations conferring resistance to an average of five other protien inhibitors. Darunavir inhibits 75% of 1501 PI-resistant viruses tested with a half maximal effective concentration (EC50) of < 10 nM. [2]

References

https://pubmed.ncbi.nlm.nih.gov/19721237/

https://pubmed.ncbi.nlm.nih.gov/17696796/

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