Product Datasheet

Technical Data

Formula	$C_{12}H_{15}N_5O_3.H_2O$					
Molecular Weight	295.29	**CAS No.**	209216-23-9			
Solubility (25°C)*	In vitro	DMSO	59 mg/mL (199.8 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.	2.95mg/ml (9.99mM)	Taking the 1 mL working solution as an example, add 50 μL of 59 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.	0.42mg/ml (1.42mM)	Taking the 1 mL working solution as an example, add 50 μL of 8.4 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	3.3865 mL	16.9325 mL	33.8650 mL
5 mM	0.6773 mL	3.3865 mL	6.7730 mL
10 mM	0.3387 mL	1.6933 mL	3.3865 mL
50 mM	0.0677 mL	0.3387 mL	0.6773 mL

Biological Activity

Description	Entecavir Hydrate (ETV, Baraclude,BMS200475 Hydrate,SQ34676 Hydrate), a new deoxyguanine nucleoside analogue, is a selective inhibitor of the replication of the **hepatitis B virus (HBV)**.
Targets	Reverse Transcriptase [1]
In vitro	Entecavir-triphosphate is a highly potent inhibitor of wild-type HBV Pol and is 100- to 300-fold more potent than lamivudine-triphosphate against 3TC-resistant HBV Pol. Entecavir inhibits the replication of 3TC-resistant HBV, but 20- to 30-fold higher concentrations are required. [1] Entecavir results in an impressive reduction of serum viral DNA with covalently closed circular DNA and hepatitis B viral core antigen negativity in liver biopsy specimens. [2] Entecavir has potent activity (EC50, 0.1 nM) against HIV in a unique single-cycle, single-cell-based pseudovirus assay (24) with CD4+ lymphocytes using a green fluorescent protein reporter fluorescence-activated cell sorter assay as the endpoint. [3]
In vivo	Entecavir causes a 4-log drop in serum DHBV DNA levels within 80 days and a slower 2- to 3-log drop in serum DHBV surface antigen (DHBsAg) levels within 120 days in ducks. Entecavir treatment reduces DHBV DNA replicative intermediates 70-fold in the liver, while the level of the stable, template form, covalently closed circular DNA decreases only 4-fold in ducks. Entecavir treatment reduces both the intensity of antigen staining and the percentage of antigen-positive hepatocytes in the liver, but the intensity of antigen staining in bile duct cells appeares not to be effected in ducks. [4]

References

https://pubmed.ncbi.nlm.nih.gov/12121928/ https://pubmed.ncbi.nlm.nih.gov/12665423/ https://pubmed.ncbi.nlm.nih.gov/18316521/

+ Expand

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