Entecavir

Catalog No.C10841 Batch:C1084103

Product Datasheet

Technical Data

Formula	$C_{12}H_{15}N_5O_3$					
Molecular Weight	277.28	**CAS No.**	142217-69-4			
Solubility (25°C)*	In vitro	DMSO	55 mg/mL (198.35 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.	2.750mg/ml (9.92mM)	Taking the 1 mL working solution as an example, add 50 μL of 55 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.	0.340mg/ml (1.23mM)	Taking the 1 mL working solution as an example, add 50 μL of 6.8 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	Entecavir(BMS200475,SQ34676), a new deoxyguanine nucleoside analogue, is a selective inhibitor of the replication of the **hepatitis B virus (HBV)**.
In vitro	For treatment of hepatitis B virus, combinations of ETV with each of the other HBV NRTI antivirals, adefovir, tenofovir, and lamivudine at 10 times their respective C^{max} levels fails to result in cellular or mitochondrial toxicity, and displays no DNA polymerase gamma inhibition.[1]
In vivo	Treatment with Entecavir in combination with AIC649, Induces tightly regulated Immunological and virological responses during active and maintenance ereatment in the woodchuck model of chronic hepatitis B.

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  HepG2 cells
- **Concentrations**
  0.034 - 3.4 μM
- **Incubation Time**
  15 days
- **Method**
  HepG2 cells ($2.7 \times 10_6$) are seeded onto collagen I-coated T75 flasks. Cultures are exposed to compounds for a total of 15 days, reseeding every 5 days to the original cell density. In addition, media and compounds are also replaced 3 days after seeding. This schedule results in replacement of media containing fresh compound on days 1, 3, 5, 8, 10, and 13. Cells and culture supernatants are harvested and assayed on days 5, 10, and 15.

References

https://pubmed.ncbi.nlm.nih.gov/18056280/

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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