Product Datasheet

Technical Data

Formula	$C_{29}H_{28}ClF_3N_4O_2$					
Molecular Weight	557.01	**CAS No.**	1334719-95-7			
Solubility (25°C)*	In vitro	Ethanol	8 mg/mL (14.36 mM)			
		DMSO	7 mg/mL (12.56 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.	0.350mg/ml (0.63mM)	Taking the 1 mL working solution as an example, add 50 μL of 7 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.	0.350mg/ml (0.63mM)	Taking the 1 mL working solution as an example, add 50 μL of 7 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	1.7953 mL	8.9765 mL	17.9530 mL
5 mM	0.3591 mL	1.7953 mL	3.5906 mL
10 mM	0.1795 mL	0.8976 mL	1.7953 mL
50 mM	-	-	-

Biological Activity

Description	Telacebec is a novel antituberculosis drug that targets **Mycobacterium tuberculosis** cellular energy production through inhibition of the mycobacterial cytochrome bc1 complex. This compound is active against Mycobacterium tuberculosis H37Rv with MIC50 of 2.7 nM in culture broth medium.
Targets	Mycobacterium tuberculosis H37Rv [2] 2.7 nM(MIC50)
In vitro	This compound (Q203) inhibits the growth of MDR and XDR M. tuberculosis clinical isolates in culture broth medium in the low nanomolar range.[1][2]
In vivo	Telacebec (Q203) is efficacious in a mouse model of tuberculosis at a dose less than 1 mg/kg body weight and displays pharmacokinetic and safety profiles compatible with once-daily dosing.^{[2]}

Protocol (from reference)

Cell Assay:[2]

- **Cell lines**
  Raw 264.7 cells
- **Concentrations**
  0.1 nM-100 μM
- **Incubation Time**
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- **Method**
  Telacebec (Q203) are incubated with macrophages previously. Raw 264.7 cells (American Type Culture Collection TIB-71) were infected with *M. tuberculosis* H37Rv-GFP at a multiplicity of infection of 2:1 and dispensed into plates. After 5 d of infection, macrophages were stained with Syto 60 for Image acquisition.

Animal Study:[2]

- **Animal Models**
  A high dose of *M. tuberculosis* H37Rv infected-acute tuberculosis BALB/c mouse model
- **Dosages**
  0.4, 2, 10 mg/kg
- **Administration**
  Oral gavage

References

https://pubmed.ncbi.nlm.nih.gov/32212527/

https://pubmed.ncbi.nlm.nih.gov/23913123/

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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