VX-445 (Elexacaftor)

Catalog No.C13720 Batch:C1372003

Product Datasheet

Technical Data

Formula	$C_{26}H_{34}F_3N_7O_4S$					
Molecular Weight	597.65	**CAS No.**	2216712-66-0			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (167.32 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 $\xrightarrow{1}$ 40%PEG300 $\xrightarrow{2}$ 5%Tween80 $\xrightarrow{3}$ 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	2.500mg/ml (4.18mM)	Taking the 1 mL working solution as an example, add 50 μL of 50 mg/ml clarified DMSO stock solution to 400 μL PEG300, mix evenly to clarify it; add 50 μL Tween-80 to the above system, mix evenly to clarify it; then continue to add 500 μL ddH2O Dilute to 1 mL. The mixed solution should be used immediately for optimal results.
			Clear solution	5%DMSO $\xrightarrow{1}$ 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	5.000mg/ml (8.37mM)	Taking the 1 mL working solution as an example, add 50 μL of 100 mg/mL clarified 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	1.6732 mL	8.3661 mL	16.7322 mL
5 mM	0.3346 mL	1.6732 mL	3.3464 mL
10 mM	0.1673 mL	0.8366 mL	1.6732 mL
50 mM	0.0335 mL	0.1673 mL	0.3346 mL

Biological Activity

Description	Elexacaftor (VX-445) is a next-generation **cystic fibrosis transmembrane conductance regulator (CFTR)** corrector.**This is a compound which is not chiral purity.**
Targets	CFTR [1]
In vitro	The pendrin-dependent increase in cystic fibrosis transmembrane conductance regulator (CFTR) current is additive with the CFTR modulator elexacaftor.[2]

Protocol (from reference)

Cell Assay:[2]

- **Cell lines**
  Human bronchial epithelial cells from DeltaF508/DeltaF508 Cystic Fibrosis patients (CF HBECs)
- **Concentrations**
  3 μM
- **Incubation Time**
  48 h
- **Method**
  Using Chamber recordings from DeltaF508/DeltaF508 CF HBEC epithelia were treated with the LIE triple combination for 48 h plus and minus 10 ng/mL IL-13 and/or 10 micromol/L niflumic acid (for 30 minutes) again. Transepithelial current (Isc) and conductance (Gt) were measured.

(Data sourced from capsid products)

References

https://pubmed.ncbi.nlm.nih.gov/30334692/ https://pubmed.ncbi.nlm.nih.gov/32923987/

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.

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