Amprenavir (VX-478)

Catalog No.C07944 Batch:C0794403

Product Datasheet

Technical Data

Formula	$C_{25}H_{35}N_3O_6S$					
Molecular Weight	505.63	**CAS No.**	161814-49-9			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (197.77 mM)			
		Ethanol	100 mg/mL (197.77 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.

* <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	Amprenavir (VX-478, 141W94, KVX-478) is a potent **PXR**-selective agonist and an **HIV protease** inhibitor, used to treat HIV.
Targets	PXR [1] / HIV protease [1] 14.6 ng/mL
In vitro	Amprenavir (VX-478) promotes the specific interactions between the nuclear receptor pregnane X receptor (PXR) and the coactivators SRC-1 and PBP. It is docked into the high-resolution crystal structure of human PXR in complex with SR12813. This compound occupies all four subpockets, and its hydroxyl group forms a hydrogen bond with Ser247, which is located in the connection region of PXR, to help to position the drug in the optimal orientation inside the receptor. It forms direct contacts with one residue on αAF of the PXR activation function-2 (AF-2) surface, Phe429, which may stabilize the active AF-2 conformation of the receptor and contribute to the agonist activity on PXR. It induces the expression of bona fide PXR target genes involved in phase I (CYP3A4), phase II (UGT1A1), and phase III (MDR1) metabolism in both HepaRG cells and LS180 cells. [1]
In vivo	Amprenavir (VX-478) increases atherogenic LDL cholesterol fractions in WT mice, but not in PXR−/− mice. It stimulates expression of known PXR target genes, including CYP3A11, glutathione transferase A1, and MDR1a, in the intestine of WT mice but not in PXR−/− mice. This compound-mediated PXR activation stimulates the expression of both LipF and LipA in the intestine of WT mice, but not in PXR−/− mice, indicating a possible role of intestinal PXR in mediating dietary lipid breakdown and absorption in mammals. [1]

References

https://pubmed.ncbi.nlm.nih.gov/23519392/

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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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