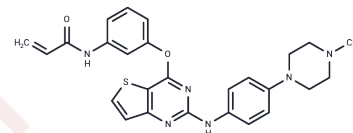


Olmutinib.

Chemical Properties

CAS No. :	1802181-20-9
Formula:	C ₂₆ H ₂₆ N ₆ O ₂ S
Molecular Weight:	486.59
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Olmutinib (B11482694) is a Novel Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor
Targets(IC50)	EGFR
In vitro	Olmutinib at 3 μ M significantly reversed drug resistance mediated by ABCG2, but not by ABCB1 and ABCC1, by antagonizing the drug efflux function in ABCG2-overexpressing cells. In addition, olmutinib at reversal concentration affected neither the protein expression level nor the localization of ABCG2. The results observed from the accumulation/efflux study of olmutinib showed that olmutinib reversed ABCG2-mediated MDR with an increasing intracellular drug accumulation due to inhibited drug efflux. We also had consistent results with the ATPase assay that olmutinib stimulated ATPase activity of ABCG2 up to 3.5-fold. Additionally, the molecular interaction between olmutinib and ABCG2 was identified by docking simulation. Olmutinib not only interacts directly with ABCG2 but also works as a competitive inhibitor of the transport protein[1]

Solubility Information

Solubility	DMSO: 55 mg/mL (113.03 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (10.28 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0551 mL	10.2756 mL	20.5512 mL
5 mM	0.411 mL	2.0551 mL	4.1102 mL
10 mM	0.2055 mL	1.0276 mL	2.0551 mL
50 mM	0.0411 mL	0.2055 mL	0.411 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhang W , Fan Y F , Cai C Y , et al. Olmutinib (BI1482694/HM61713), a Novel Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor, Reverses ABCG2-Mediated Multidrug Resistance in Cancer Cells[J]. *Frontiers in Pharmacology*, 2018, 9.

Zhang Z , Fu L , Guo X , et al. Olmutinib (HM61713) reversed multidrug resistance by inhibiting the activity of ATPbinding cassette subfamily G member 2 in vitro and in vivo[J]. 2018, 008(004):563-574.

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