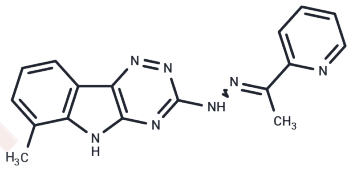
Data Sheet (Cat.No.T8500)

TargetMol

VLX600

Chemical Properties



CAS No. : 327031-55-0

Formula: C17H15N7

Molecular Weight: 317.35

Storage: Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	VLX600 is an iron-chelating oxidative phosphorylation (OXPHOS) inhibitor, is a cell-permeable anticancer agent. It acts by reducing mitochondrial oxidative phosphorylation in tumor cells.
Targets(IC50)	OXPHOS,Mitochondrial Metabolism,Autophagy
In vitro	VLX600 as a drug that is preferentially active against quiescent cells in colon cancer 3-D microtissues.?The anticancer activity is associated with reduced mitochondrial respiration, leading to bioenergetic catastrophe and tumour cell death.?VLX600 shows enhanced cytotoxic activity under conditions of nutrient starvation.?Importantly, VLX600 displays tumour growth inhibition in vivo.
Cell Research	HCT116, HT29, SW620, HT8, DLD and RKO cells.Concentration,0.1, 1, 10, 100μM. 72 hours

Solubility Information

Solubility	DMSO: 8 mg/mL (25.21 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 0.5 mg/mL (1.58 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1511 mL	15.7555 mL	31.511 mL
5 mM	0.6302 mL	3.1511 mL	6.3022 mL
10 mM	0.3151 mL	1.5755 mL	3.1511 mL
50 mM	0.063 mL	0.3151 mL	0.6302 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

Xiaonan Zhang , Mårten Fryknäs , Emma Hernlund,et al. Induction of Mitochondrial Dysfunction as a Strategy for Targeting Tumour Cells in Metabolically Compromised Microenvironments[J].Nat Commun. 2014;5:3295.
Karlsson H, et al. A novel tumor spheroid model identifies selective enhancement of radiation by an inhibitor of oxidative phosphorylation. Oncotarget. 2019 Sep 3;10(51):5372-5382.
Arun Kanakkanthara , Kiran Kurmi , Thomas L Ekstrom, et al.BRCA1 Deficiency Upregulates NNMT, Which Reprograms Metabolism and Sensitizes Ovarian Cancer Cells to Mitochondrial Metabolic Targeting Agents[1]. Cancer Res. 2019 Dec 1;79(23):5920-5929.