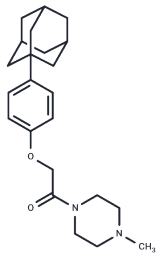
Data Sheet (Cat.No.T5537)

TargetMol

IDF-11774

Chemical Properties



CAS No. : 1429054-28-3

Formula: C23H32N2O2

Molecular Weight: 368.51

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	IDF-11774 is a HIF-1 inhibitor.It reduces hif-1α HRE luciferase activity (IC50 = 3.65 μM).
Targets(IC50)	HIF/HIF Prolyl-Hydroxylase,HIF
In vitro	IDF-11774 treatment suppressed angiogenesis of cancer cells by reducing the expression of HIF-1 target genes, reduced glucose uptake, thereby sensitizing cells to growth under low glucose conditions, and decreased the extracellular acidification rate (ECAR) and oxygen consumption rate of cancer cells.
In vivo	Luciferase activity and HIF-1α accumulation are significantly suppressed in the tumors of mice treated with oral administration of IDF-11774, compared to the control.
Animal Research	When IDF-11774 is orally administered daily for two weeks, significant dose-dependent tumor regression is observed in the mouse model.

Solubility Information

Solubility	DMSO: 19.23 mg/mL (52.18 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: 1 mg/mL (2.71 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	2.7136 mL	13.5682 mL	27.1363 mL
5 mM	0.5427 mL	2.7136 mL	5.4273 mL
10 mM	0.2714 mL	1.3568 mL	2.7136 mL
50 mM	0.0543 mL	0.2714 mL	0.5427 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

Ban H S , Kim B K , Lee H , et al. The novel hypoxia-inducible factor-1α inhibitor IDF-11774 regulates cancer metabolism, thereby suppressing tumor growth[J]. Cell Death and Disease, 2017, 8(6):e2843.
Chang L L, Lu P H, Yang W, et al. AKR1C1 promotes non-small cell lung cancer proliferation via crosstalk between HIF-1α and metabolic reprogramming. Translational Oncology. 2022, 20: 101421