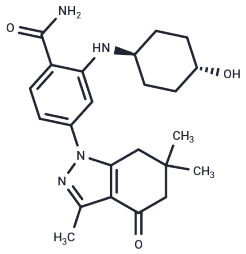
Data Sheet (Cat.No.T67836)

TargetMol

AT-533

Chemical Properties



CAS No. : 908112-37-8

Formula: C23H30N4O3

Molecular Weight: 410.51

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	AT-533 is a potent inhibitor of Hsp90 and HSV. AT-533 blocks the HIF-1α/VEGF/VEGFR-2 signaling pathway, leading to suppress tumor growth and angiogenesis. AT-533 also inhibits the activation of the downstream pathways, including Erk1/2, FAK, Akt/mTOR/p70S6K,. AT-533 inhibits the cell migration, invasion, and the tube formation of human umbilical vein endothelial cells (HUVECs).
Targets(IC50)	ERK,FAK,HSP,NF-κB,HIF/HIF Prolyl-Hydroxylase,Akt,HSV,VEGFR
In vitro	AT-533 (0-1350 nM; 24h or 48h) inhibits 20 ng/mL VEGF-induced tube formation, cell migration, and HUVEC invasion. Additionally, AT-533 (2 μM or 75 μM; 24h) hinders the HIF-1α/VEGF signaling pathway in hypoxia-induced breast cancer cells and inhibits Akt/mTOR/p70S6K, Erk1/2, and FAK phosphorylation. It shows anti-angiogenic activity on the chorionic villus (CAM) model at 10 nM and 50 nM over 48h. Furthermore, AT-533 (0.5 μM; 2 or 4 hours) reduces TNF-α, IL-1β, and IL-6 production induced by HSV-1 in RAW264.7 and BV2 cells [1, 2].
In vivo	AT-533 (10 mg/kg; intraperitoneal injection; once daily for 21 days) inhibited the expression of HIF-1α/VEGF signaling pathway-related proteins in a mouse MDA-MB-231 xenograft model of breast cancer [1]. AT-533 (1, 2, 4 mg/kg; intraperitoneal injection; once daily for 30 days) did not cause death, appetite loss, weight loss, or adverse reactions in subacute toxicity tests of Sprague Dawley rats [3].

Solubility Information

Solubility	DMSO: 60 mg/mL (146.16 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: 2 mg/mL (4.87 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	2.436 mL	12.180 mL	24.3599 mL
5 mM	0.4872 mL	2.436 mL	4.872 mL
10 mM	0.2436 mL	1.218 mL	2.436 mL
50 mM	0.0487 mL	0.2436 mL	0.4872 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

Aihara A, et al. Small molecule LATS kinase inhibitors block the Hippo signaling pathway and promote cell growth under 3D culture conditions. J Biol Chem. 2022 Apr;298(4):101779.