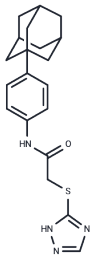
Data Sheet (Cat.No.T9032)

TargetMol

MGH-CP1

Chemical Properties



CAS No. : 896657-58-2

Formula: C20H24N4OS

Molecular Weight: 368.5

Storage: Keep away from direct sunlight
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	MGH-CP1 is a potent and selective inhibitor of TEAD palmitoylation, demonstrating dose-dependent and potent inhibition of TEAD2/4 auto-palmitoylation in vitro with IC50 values of 710 nM and 672 nM, respectively.
Targets(IC50)	Apoptosis,Others
In vitro	MGH-CP1 exhibits dose-dependent and potent inhibition of TEAD2/4 auto-palmitoylation in vitro, with IC50 of 710 nM and 672 nM, respectively.?Furthermore, ? MGH-CP1 treatment markedly decreased the palmitoylation levels of endogenous or ectopically expressed TEAD proteins in cells.
In vivo	MGH-CP1 inhibits TEAD activity in Lats1/2 KO intestine in vivo. MGH-CP1 can effectively inhibit the palmitoylation of TEAD proteins in the intestinal epithelium. MGH-CP1 is well tolerated and has no apparent adverse effect on overall animal health or body weight after 2 weeks of treatment. In contrast to its lack of apparent effect in wild-type intestine, MGH-CP1 treatment effectively inhibits upregulation of the TEAD target genes, CTGF and ANKRD1, in Lats1/2 KO intestine
Cell Research	HEK293T cells, Lats1/2 conditional MEFs and MDA-MB-231 cells were cultured in DMEM supplemented with 10% FBS and 1% penicillin/streptomycin.?For Lats1/2 conditional MEFs carrying CMV-CreER, Lats1/2 was deleted by incubation with 4-OH Tamoxifen (2.5 mM) in DMEM for 4 days prior to further experiment.?Transfection in HEK293T cells was performed using Lipofectamine 2000 (Invitrogen).?For luciferase reporter assays, HEK293T cells were transfected with the luciferase reporter constructs TBS-Luc (8XGTIIC-Luc), Super TOP-FLASH (STF), Gli-BS-Luc, BRE-Luc, and NF-kB-Luc, as well as the expression vectors of pGIPZ-YAP5SA, pGIPZ-YAP6SA, pGIPZ-TAZ4SA, pLV-β-Catenin-ΔN90, pCIG-Wnt3a, pCMV-LRP5C, pCIG-BMP4, pCIG-Gli1,?pGIPZ-IKBKE (Rajurkar et al., 2017) and pCMV-Renilla lucifease.?Luciferase activities were conducted 24 hours after transfection using the dual-luciferase reporter kit (Promega) in the cells treated with or without Wnt3A, LiCl or MGH-CP1.?Assays were conducted in triplicates and quantified using PerkinElmer EnVision plate reader.

Solubility Information

Solubility	Ethanol: 74 mg/mL (200.81 mM),Sonication is recommended. DMSO: 250 mg/mL (678.43 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 (5.43 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	2.7137 mL	13.5685 mL	27.137 mL
5 mM	0.5427 mL	2.7137 mL	5.4274 mL
10 mM	0.2714 mL	1.3569 mL	2.7137 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

Li Q , Sun Y , Jarugumilli G K , et al. Lats1/2 Sustain Intestinal Stem Cells and Wnt Activation through TEAD-Dependent and Independent Transcription[J]. Cell stem cell, 2020.