Data Sheet (Cat.No.T3499)

TargetMol

Remodelin

Chemical Properties

CAS No. :	949912-58-7
Formula:	C15H14N4S
Molecular Weight:	282.363
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	Remodelin is an effective and specific inhibitor of the acetyl-transferase protein NAT10.
Targets(IC50)	Histone Acetyltransferase
Kinase Assay	GRK5 and urea-washed bovine rod outer segments (ROS) are mixed in the dark in buffer containing 20 mM HEPES, pH 7.5, 4 mM MgCl2, and 2 mM EDTA and incubated for 35 min at room temperature. The reaction mixtures are exposed to ambient fluorescent light for 1 min prior to initiation of the reaction by addition of ATP (with [γ-32P]ATP) to a final concentration of 1 mM. Final concentration of GRK5 is 100 nM and ROS is between 0.75 and 24 μM. Reactions are initiated at room temperature, and samples are taken at 2-5 min and then quenched with SDS-PAGE loading dye. Proteins are separated using SDS-PAGE, gel is dried, and the incorporation of γ-32P is detected using a phosphor storage screen. Rates at 0 min are plotted against the ROS concentration, and Vmax and Kmvalues are determined using the Michaelis-Menten equation. Vmax of each curve is normalized to the Vmax of GRK5561 run in parallel. Melting point determinations in response to 200 μM CCG215022 are performed in 20 mM HEPES, pH 7.0, 5 mM MgCl2, 2 mM DTT, 1 mM CHAPS at a final GRK5 concentration of 0.2 mg/mL and 100 μM anilinonaphthalene-8-sulfonic acid using a ThermoFluor plate reader. Melting points of GRK5 variants are assayed in a buffer containing 20 mM HEPES, pH 8.0, 200 mM NaCl, 2 mM DTT, 2.5 mM MgCl2, and 0.1 mM anilinonaphthalene-8-sulfonic acid with or without 5 mM ATP. Final GRK5 concentration for these assays is 0.1 mg/mL[1].

Solubility Information

Solubility	DMSO: 125 mg/mL (442.69 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 (17.71 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	3.5416 mL	17.7079 mL	35.4158 mL
5 mM	0.7083 mL	3.5416 mL	7.0832 mL
10 mM	0.3542 mL	1.7708 mL	3.5416 mL
50 mM	0.0708 mL	0.3542 mL	0.7083 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

Larrieu D, et al. Chemical inhibition of NAT10 corrects defects of laminopathic cells. Science. 2014 May 2;344 (6183):527-32.
Wang X, Li K, Cheng M, et al.RNPS1 stabilizes NAT10 protein to facilitate translation in cancer via tRNA ac4C modification.bioRxiv.2023: 2023.02. 11.528122.
Dang Y, Li J, Li Y, et al.N-acetyltransferase 10 regulates alphavirus replication via N4-acetylcytidine (ac4C) modification of the lymphocyte antigen six family member E (LY6E) mRNA.Journal of Virology.2024: e01350-23.