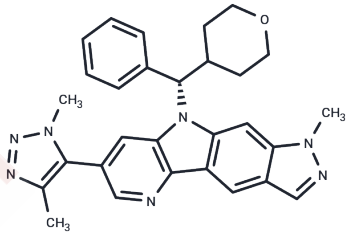
Data Sheet (Cat.No.T36573)

TargetMol

NHWD-870

Chemical Properties



CAS No. : 2115742-03-3

Formula: C29H29N7O

Molecular Weight: 491.59

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	NHWD-870 is an effective and selective inhibitor of BET family bromodomain only binding to BRD2, BRD3, BRD4 (IC50 = 2.7 nM), and BRDT. NHWD-870 exhibits potent anti-tumor efficacies and suppresses cancer cell-macrophage interaction through the increase of tumor apoptosis and inhibition of tumor proliferation.
Targets(IC50)	Apoptosis,Epigenetic Reader Domain
In vitro	NHWD-870 exhibits mild inhibition of the hERG channel (IC50=5.4μM). NHWD-870 shows robust activities inducing apoptosis and suppressing cell proliferation. NHWD-870 (0.01-10000 nM) inhibits melanoma cells (A375) with an IC50 of 2.46 nM. In H526, A2780, ES-2, and MDA-MB231 cells, NHWD-870 (0-10000 nM; 5 days) suppressed cell growth. NHWD-870 (0-50 nM; 24hours) inhibits BRD4 phosphorylation and c-MYC expression in H526, A2780, ES-2, and MDA-MB231 cells[1].
In vivo	NHWD-870 (0.75-3 mg/kg; p.o.) reduces tumor-associated macrophages (TAMs) in subcutaneous H526 and A2780 tumors by downregulating CSF1 expression in tumor cells, thereby inhibiting TAM proliferation[1].

Solubility Information

Solubility	DMSO: 60 mg/mL (122.05 mM),Sonication and heating to 60℃ are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (5.09 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	2.0342 mL	10.1711 mL	20.3422 mL
5 mM	0.4068 mL	2.0342 mL	4.0684 mL
10 mM	0.2034 mL	1.0171 mL	2.0342 mL
50 mM	0.0407 mL	0.2034 mL	0.4068 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

Yin M, et al. Potent BRD4 inhibitor suppresses cancer cell-macrophage interaction. Nat Commun. 2020;11(1):1833. Published 2020 Apr 14.

Nenghui Wang, et al. Abstract 1382: A novel BET family bromodomain inhibitor NHWD-870 represents a promising therapeutic agent for a broad spectrum of cancers. Molecular and Cellular Biology, Genetics.