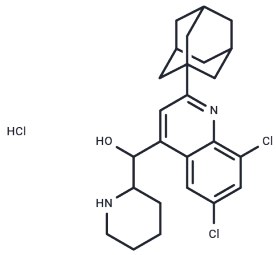
Data Sheet (Cat.No.T12263L)

TargetMol

NSC305787 hydrochloride

Chemical Properties



CAS No. : 53868-26-1

Formula: C25H31Cl3N2O

Molecular Weight: 481.89

Storage: Store at low temperature
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	NSC305787 hydrochloride ((Rac)-NSC305787 hydrochloride is a cell membrane permeable and selective and potent small molecule dual inhibitor of Cdc25 dual specificity phosphatase and EZR that displays antitumor activity in pancreatic cancer cells and inhibits Cdc25B2, Cdc25A, Cdc25B2 and Cdc25C.NSC 663284 inhibits NSD2 (IC50 of 170 nM) enzyme activity.
Targets(IC50)	Others,Arp2/3 Complex
In vitro	NSC305787 hydrochloride, an inhibitor of ezrin, exhibits a Kd of 5.85 μM and demonstrates antitumor activity. With IC50 values of 8.3, 9.4, 55, and 58.9 μM, NSC305787 hydrochloride inhibits PKCI phosphorylation of Ezrin, Moesin, Radixin, and MBP, respectively. Binding to PKCI with a Kd value of 172.4 μM, NSC305787 hydrochloride primarily inhibits ezrin T567 phosphorylation through its binding to ezrin, not via the inhibition of PKCI kinase activity. In the context of K7M2 osteosarcoma (OS) cells, NSC305787 hydrochloride (1, 10 μM) displays inhibitory activity against ezrin-mediated invasion. Furthermore, at a concentration of 10 μM, NSC305787 hydrochloride diminishes cell motility phenotypes in zebrafish and hinders OS metastatic growth in lung organ culture[2].
In vivo	In a mouse model,NSC305787 hydrochloride (i.p., 0.240 mg/kg/day) effectively suppresses ezrin-dependent osteosarcoma metastatic growth in the lung[1]. Additionally, in a transgenic mouse model of osteosarcoma (Osx-Cre+p53fl/flpRBfl/fl), NSC305787 hydrochloride (i.p., 240 μg/kg) exhibits a remarkable inhibition of pulmonary metastasis. Furthermore, it demonstrates a more favorable pharmacokinetic profile compared to NSC668394 in the same mouse model[1].

Solubility Information

Solubility	DMSO: 5 mg/mL (10.38 mM),Sonication is recommended. H2O: <0.1 mg/mL (Insoluble) (< 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 (2.08 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*

In vivo Formulation	*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	2.0752 mL	10.3758 mL	20.7516 mL
5 mM	0.415 mL	2.0752 mL	4.1503 mL
10 mM	0.2075 mL	1.0376 mL	2.0752 mL
50 mM	0.0415 mL	0.2075 mL	0.415 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

Çelik H, et al. Ezrin Inhibition Up-regulates Stress Response Gene Expression. J Biol Chem. 2016 Jun 17;291(25): 13257-70.

Bulut G, et al. Small molecule inhibitors of ezrin inhibit the invasive phenotype of osteosarcoma cells. Oncogene. 2012 Jan 19;31(3):269-81.