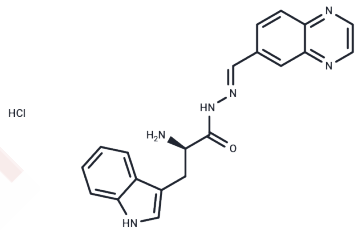
Data Sheet (Cat.No.T16745)

TargetMol

Rhosin hydrochloride

Chemical Properties



CAS No. :	1281870-42-5
Formula:	C20H20Cl2N6O
Molecular Weight:	431.318
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	Rhosin hydrochloride is a specific inhibitor of the RhoA subfamily Rho GTPases and inhibits the RhoA-GEF interaction. Rhosin hydrochloride can significantly induce cell apoptosis without affecting cell cycle progression. [1]
Targets(IC50)	Apoptosis,Rho,Ras
In vitro	**METHODS**: To investigate the cytotoxic effects of Rhosin hydrochloride on B16BL6 and 4T1 cells, cell viability was assessed by treating cells with 1-100 μM Rhosin hydrochloride. **RESULTS** Rhosin hydrochloride at a concentration of 100 μM induced cell death in B16BL6 and 4T1 cells. [1]
In vivo	**METHODS**: B16BL6 cells and 4T1 cells were injected into the tail vein of syngeneic C57BL/6J mice and Balb/c mice. Mice were treated with 10 or 30 mg/kg of Rhosin hydrochloride daily from day 1 to day 14. **RESULTS** The number of lung metastatic nodules in B16BL6 and 4T1 cells was reduced in a dose-dependent manner after administration of Rhosin hydrochloride, and Rhosin hydrochloride inhibited the metastasis of 4T1-luc tumor cells to the lung region, which could be confirmed by the reduction of photon flux. [1]

Solubility Information

Solubility	DMSO: 49 mg/mL (113.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn oil: < 10 mg/mL (23.18 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Saline: 4.9 mg/mL (11.36 mM),Solution. 10% DMSO+90% (20% SBE-β-CD in Saline): < 10 mg/mL (23.18 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: < 10 mg/mL (23.18 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3185 mL	11.5923 mL	23.1846 mL
5 mM	0.4637 mL	2.3185 mL	4.6369 mL
10 mM	0.2318 mL	1.1592 mL	2.3185 mL
50 mM	0.0464 mL	0.2318 mL	0.4637 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

Shang X, et al. Rational design of small molecule inhibitors targeting RhoA subfamily Rho GTPases. Chem Biol. 2012 Jun 22;19(6):699-710.

Tsubaki M, et al. Rhosin Suppressed Tumor Cell Metastasis through Inhibition of Rho/YAP Pathway and Expression of RHAMM and CXCR4 in Melanoma and Breast Cancer Cells. Biomedicines. 2021 Jan 4;9(1):35.