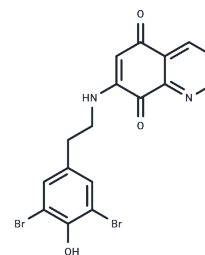


NSC668394

Chemical Properties

CAS No. : 382605-72-3
 Formula: C₁₇H₁₂Br₂N₂O₃
 Molecular Weight: 452.1
 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	NSC668394 is a potent small molecule ezrin (Thr567) phosphorylation inhibitor. NSC668394 has potential antitumor activity by inhibiting ezrin T567 phosphorylation and increasing Ca ²⁺ -dependent ezrin cleavage. NSC668394 can be used to study tumor metastasis.
Targets(IC50)	PKC
In vitro	NSC668394, when pretreated at 10 μM for 15 minutes, inhibits ezrin T567 phosphorylation (IC ₅₀ =8.1 μM) and in vitro actin binding[2]. Additionally, at concentrations ranging from 1 to 10 μM for 2 to 6 hours, NSC668394 inhibits ezrin-mediated invasion of K7M2 osteosarcoma (OS) cells into HUVEC monolayers[2]. Furthermore, at a concentration of 20 μM, NSC668394 significantly reduces the growth of JM1 and JM2 rat hepatocellular carcinoma cell lines[1]. Notably, NSC668394 at 10 μM diminishes cell motility phenotypes in zebrafish[2].
In vivo	Administered at a dose of 0.226 mg/kg/day through weekly intraperitoneal injections for 5 days, NSC668394 inhibits ezrin protein-dependent in vivo metastatic growth in the lungs of mice[2].

Solubility Information

Solubility	DMSO: 30 mg/mL (66.36 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 (4.42 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2119 mL	11.0595 mL	22.119 mL
5 mM	0.4424 mL	2.2119 mL	4.4238 mL
10 mM	0.2212 mL	1.106 mL	2.2119 mL
50 mM	0.0442 mL	0.2212 mL	0.4424 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

- Xue Y, et, al. Phosphorylated Ezrin (Thr567) Regulates Hippo Pathway and Yes-Associated Protein (Yap) in Liver. *Am J Pathol.* 2020 Jul;190(7):1427-1437.
- Bulut G, et, al. Small molecule inhibitors of ezrin inhibit the invasive phenotype of osteosarcoma cells. *Oncogene.* 2012 Jan 19;31(3):269-81.
- Çelik H, et, al. Ezrin Inhibition Up-regulates Stress Response Gene Expression. *J Biol Chem.* 2016 Jun 17;291(25):13257-70.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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