NSC 405020

Cat. No.: HY-15827

CAS No.: 7497-07-6

Molecular Formula: $C_{12}H_{15}Cl_2NO$

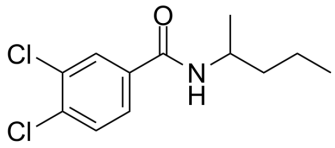
Molecular Weight: 260.16

Target: MMP

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 260 mg/mL (999.38 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	3.8438 mL	19.2189 mL	38.4379 mL
	5 mM	0.7688 mL	3.8438 mL	7.6876 mL
	10 mM	0.3844 mL	1.9219 mL	3.8438 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.61 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NSC 405020 is a specific MMP14 inhibitor. NSC 405020 can directly interact with the hemopexin domain of MMP14. NSC 405020 reduces the expression of full length and active cleaved Notch3 (NICD3). NSC 405020 can be used to research vestibular schwannoma, hemostasis and thrombosis[1][2][3].

IC_{50} & Target

MMP14[1]

In Vitro

NSC 405020 (100 and 1000 μM; 0-30 min) inhibits MMP-14 levels by over 85% with a dose-dependent manner in the plasma sample from vestibular schwannoma group[1].

NSC 405020 (50 μM) reduces expression of the full length and active cleaved Notch3 (NICD3) by 42% in the WM852 cells[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Rep. 2018 Nov 20;25(8):2163-2176.

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REFERENCES

[1]. Ren Y, et al. MMP-14 (MT1-MMP) Is a Biomarker of Surgical Outcome and a Potential Mediator of Hearing Loss in Patients With Vestibular Schwannomas. Front Cell Neurosci. 2020 Jul 28;14:191.

[2]. Pekkonen P, et al. Lymphatic endothelium stimulates melanoma metastasis and invasion via MMP14-dependent Notch3 and β1-integrin activation. Elife. 2018 May 1;7:e32490.

[3]. Mastenbroek TG, et al. Platelet-Associated Matrix Metalloproteinases Regulate Thrombus Formation and Exert Local Collagenolytic Activity. Arterioscler Thromb Vasc Biol. 2015 Dec;35(12):2554-61.

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