Mevalonic acid lithium salt

Cat. No.: HY-113071A

CAS No.: 2618458-93-6

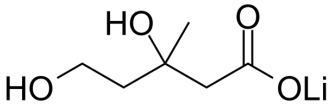
Molecular Formula: $C_6H_{11}LiO_4$

Molecular Weight: 154.09

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (648.97 mM; Need ultrasonic)
DMSO : 50 mg/mL (324.49 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration / Solvent / Mass	1 mg	5 mg	10 mg
1 mM	6.4897 mL	32.4486 mL	64.8971 mL
5 mM	1.2979 mL	6.4897 mL	12.9794 mL
10 mM	0.6490 mL	3.2449 mL	6.4897 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 25 mg/mL (162.24 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (16.22 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (16.22 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (16.22 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Mevalonic acid (MVA) lithium salt is a precursor substance of the mevalonate pathway, which is essential for cell growth and proliferation. Mevalonic acid lithium salt is effective in inhibiting Simvastatin (HY-17502)-induced decrease in C2C12 cell viability in vitro. Mevalonic acid lithium salt can be used in studies of myopathy and heart failure[1][2].

In Vitro

Mevalonic acid lithium salt (80, 90, 100, 110 μM; 72 h) shows prevention of simvastatin-induced loss of viability of C2C12myotube cells in vitro[1].

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

Cell Viability Assay[1]

Cell Line:	C2C12 cells (simvastatin-induced)
Concentration:	80, 90, 100, 110 μM
Incubation Time:	72 h
Result:	Showed no decline in cell viability.

CUSTOMER VALIDATION

- Acta Pharm Sin B. 2023 Apr 17.
- Acta Pharmacol Sin. 2021 Feb 19.
- Cell Biosci. 2021 Oct 9;11(1):179.
- Biochim Biophys Acta Mol Cell Biol Lipids. 2022 Aug 16;159217.
- Biomedicines. 2022, 10(10), 2489.

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REFERENCES

[1]. Moschetti A, et al. Coenzyme Q nanodisks counteract the effect of statins on C2C12 myotubes. Nanomedicine. 2021 Oct;37:102439.

[2]. Soma MR, et al. Cholesterol and mevalonic acid modulation in cell metabolism and multiplication. Toxicol Lett. 1992 Dec;64-65 Spec No:1-15.

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