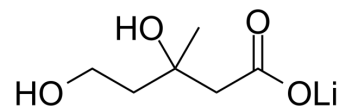


## Mevalonic acid lithium salt

<b>Cat. No.:</b>	HY-113071A
<b>CAS No.:</b>	2618458-93-6
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>11</sub> LiO <sub>4</sub>
<b>Molecular Weight:</b>	154.09
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	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<sub>2</sub>O : 100 mg/mL (648.97 mM; Need ultrasonic)  
DMSO : 50 mg/mL (324.49 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	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

- Add each solvent one by one: PBS  
Solubility: 25 mg/mL (162.24 mM); Clear solution; Need ultrasonic
- 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
- 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
- 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<sup>[1][2]</sup>.

#### In Vitro

Mevalonic acid lithium salt (80, 90, 100, 110 μM; 72 h) shows prevention of simvastatin-induced loss of viability of C2C12 myotube cells in vitro<sup>[1]</sup>.

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

#### Cell Viability Assay<sup>[1]</sup>

Cell Line:	C2C12 cells (simvastatin-induced)
Concentration:	80, 90, 100, 110 $\mu$ M
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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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