# **PRODUCT** INFORMATION



Mevalonate (lithium salt)

Item No. 37476

CAS Registry No.:	2618458-93-6	
Formal Name:	3,5-dihydroxy-3-methyl-pentanoic acid, monolithium salt	
Synonyms:	Mevalonic Acid, MVA, Pentanoic Acid	∖ ∕ <sup>OH</sup> o
MF:	C <sub>6</sub> H <sub>12</sub> O₄ • Li	$\land$ $\land$ $\land$ $\land$
FW:	155.1	но 🗸 🔨 сон
Purity:	≥95%	• Li
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	
Information represents	s the product specifications. Batch specific analytical re	esults are provided on each certificate of analysis

## Laboratory Procedures

Mevalonate (lithium salt) is supplied as a solid. A stock solution may be made by dissolving the mevalonate (lithium salt) in the solvent of choice, which should be purged with an inert gas. Mevalonate (lithium salt) is soluble in DMSO.

## Description

Mevalonate is an intermediate in the mevalonate pathway of cholesterol synthesis.<sup>1</sup> It inhibits cell death induced by the HMG-CoA reductase inhibitor simvastatin (Item Nos. 10010344 | 10010345) in C2C12 myoblasts when used at concentrations ranging from 80 to 110  $\mu$ M.<sup>2</sup> Mevalonate (500  $\mu$ M) reverses decreases in proliferation induced by the HMG-CoA reductase inhibitor lovastatin (Item No. 10010338) in several colon cancer cell lines, including RKO and SW480 cells.<sup>3</sup> It increases lovastatin-induced decreases in the expression of the genes encoding Axin2, ectodermal-neural cortex 1 (ENC1), BCL2-like 1 (BCL2-L1), and cyclin D1 when used at a concentration of 500  $\mu$ M. Mevalonate (50  $\mu$ M) increases Rac1 protein levels, as well as increases Rac1 farnesylation induced by the arachidonic metabolite 15(S)-HETE (Item No. 34720) in human dermal microvascular endothelial cells (HDMVECs).<sup>4</sup>

## References

- 1. Yazawa, H., Zimmermann, B., Asami, Y., et al. Simvastatin promotes cell metabolism, proliferation, and osteoblastic differentiation in human periodontal ligament cells. J. Periodontol. 76(2), 295-302 (2005).
- 2. Moschetti, A., Dagda, R.K., and Ryan, R.O. Coenzyme Q nanodisks counteract the effect of statins on C2C12 myotubes. Nanomedicine 37, 102439 (2021).
- 3. Gong, L., Xiao, Y., Xia, F., et al. The mevalonate coordinates energy input and cell proliferation. Cell Death Dis. 10(4), 327 (2019).
- 4. Singh, N.K., Kundumani-Sridharan, V., and Rao, G.N. 12/15-Lipoxygenase gene knockout severely impairs ischemia-induced angiogenesis due to lack of Rac1 farnesylation. Blood 118(20), 5701-5712 (2011).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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