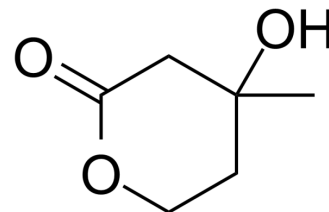


DL-Mevalonolactone

Cat. No.:	HY-107855		
CAS No.:	674-26-0		
Molecular Formula:	C ₆ H ₁₀ O ₃		
Molecular Weight:	130.14		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (1921.01 mM; Need ultrasonic)
 H₂O : 50 mg/mL (384.20 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	7.6840 mL	38.4202 mL	76.8403 mL
	5 mM	1.5368 mL	7.6840 mL	15.3681 mL
	10 mM	0.7684 mL	3.8420 mL	7.6840 mL

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

In Vivo

- Add each solvent one by one: PBS
Solubility: 110 mg/mL (845.24 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (15.98 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (15.98 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (15.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DL-Mevalonolactone ((±)-Mevalonolactone; Mevalolactone) is the δ-lactone form of mevalonic acid, a precursor in the mevalonate pathway. DL-Mevalonolactone (Mevalonolactone) decreases mitochondrial membrane potential (ΔΨ_m), NAD(P)H content and the capacity to retain Ca²⁺ in the brain, besides inducing mitochondrial swelling^{[1][2]}.

REFERENCES

- [1]. Domingos SR, et al. On the structural intricacies of a metabolic precursor: Direct spectroscopic detection of water-induced conformational reshaping of mevalonolactone. *J Chem Phys.* 2017 Sep 28;147(12):124310.
- [2]. Cecatto C, et al. Mevalonolactone disrupts mitochondrial functions and induces permeability transition pore opening in rat brain mitochondria: Implications for the pathogenesis of mevalonic aciduria. *Neurochem Int.* 2017 Sep;108:133-145.
-

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA