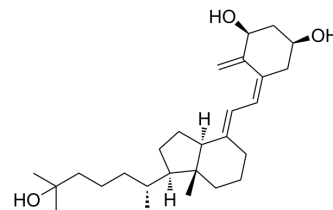


(1S)-Calcitriol

Cat. No.:	HY-10002A
CAS No.:	61476-45-7
Molecular Formula:	C ₂₇ H ₄₄ O ₃
Molecular Weight:	416.64
Target:	VD/VDR
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (240.02 mM; Need ultrasonic)					
		Solvent Concentration	Mass			
	Preparing Stock Solutions			1 mg	5 mg	10 mg
		1 mM		2.4002 mL	12.0008 mL	24.0015 mL
		5 mM		0.4800 mL	2.4002 mL	4.8003 mL
	10 mM		0.2400 mL	1.2001 mL	2.4002 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (6.00 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.00 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.00 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	(1S)-Calcitriol (1α,25-Dihydroxy-3-epi-vitamin-D ₃) is a natural metabolite of 1α,25-dihydroxyvitamin D ₃ (1α,25(OH) ₂ D ₃). (1S)-Calcitriol exhibits potent vitamin D receptor (VDR)-mediated actions such as inhibition of keratinocyte growth or suppression of parathyroid hormone secretion ^[1] .
In Vitro	3β-epi-Calciroic acid is an end product of (1S)-Calcitriol (1α,25-Dihydroxy-3-epi-vitamin-D ₃ ; 3β-epi-1α,25(OH) ₂ D ₃) metabolism by rat CYP24A1 ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Steve Y Rhieu, et al. Metabolic stability of 3-epi-1 α ,25-dihydroxyvitamin D3 over 1 α 25-dihydroxyvitamin D3: metabolism and molecular docking studies using rat CYP24A1. J Cell Biochem. 2013 Oct;114(10):2293-305.

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