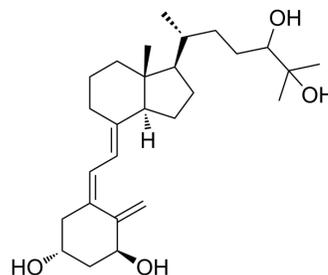


Calcitriol

Cat. No.:	HY-15157
CAS No.:	72203-93-1
Molecular Formula:	C ₂₇ H ₄₄ O ₄
Molecular Weight:	432.64
Target:	VD/VDR
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	4°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 (231.14 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.3114 mL	11.5570 mL	23.1139 mL
5 mM	0.4623 mL	2.3114 mL	4.6228 mL
10 mM	0.2311 mL	1.1557 mL	2.3114 mL

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

BIOLOGICAL ACTIVITY

Description

Calcitriol(1 α , 24, 25-Trihydroxy VD₃) is the hormonally active form of vitamin D with three hydroxyl groups. IC₅₀ value: Target: Calcitriol increases blood calcium levels ([Ca²⁺]) by promoting absorption of dietary calcium from the gastrointestinal tract and increasing renal tubular reabsorption of calcium, thus reducing the loss of calcium in the urine. Calcitriol also stimulates release of calcium from bone by its action on the specific type of bone cells referred to as osteoblasts, causing them to release RANKL, which in turn activates osteoclasts.

REFERENCES

[1]. Akiyoshi-Shibata M, et al. Further oxidation of hydroxycalcidiol by calcidiol 24-hydroxylase. A study with the mature enzyme expressed in Escherichia coli. Eur J Biochem. 1994 Sep 1;224(2):335-43.

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

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