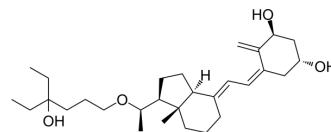


Lexacalcitol

Cat. No.:	HY-32340
CAS No.:	131875-08-6
Molecular Formula:	C ₂₉ H ₄₈ O ₄
Molecular Weight:	460.69
Target:	VD/VDR
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	-20°C, protect from light, stored under nitrogen * The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (217.07 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		2.1707 mL	10.8533 mL	21.7066 mL
	5 mM		0.4341 mL	2.1707 mL	4.3413 mL
	10 mM		0.2171 mL	1.0853 mL	2.1707 mL

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

BIOLOGICAL ACTIVITY

Description

Lexacalcitol (KH1060), a vitamin D analog, is a potent regulator of cell growth and immune responses. Lexacalcitol can be used for the research of graft rejection, psoriasis, cancer and auto-immune diseases^{[1][2]}.

In Vitro

Lexacalcitol inhibits cell proliferation by 50% at 10⁻¹² M (14,000 times more active than 1α,25(OH)₂D₃) in human histiocytic lymphoma cell line U 937^[1].

Lexacalcitol inhibits interleukin-1-induced mouse thymocyte proliferation by 50% at 3×10⁻¹⁶ M, allogeneic stimulation of mouse spleen lymphocytes at 5×10⁻¹⁵ M^[1].

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

In Vivo

Lexacalcitol (0.5 mg/kg/2 days; i.p.) in combination with cyclosporin A (CyA) can prevent autoimmune destruction of syngeneic islet grafts in spontaneously diabetic NOD recipients^[2].

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

Animal Model:	Male and female spontaneously diabetic NOD mice ^[2]
Dosage:	0.5 mg/kg/2 days

Administration:	Intraperitoneal injection
Result:	Single treatment with KH1060 or CyA did not result in statistically significant suppression of early graft failure, while the combination of KH1060 and CyA can prevent early graft failure and delay graft rejection of xenogeneic islets in spontaneously diabetic NOD mice.

REFERENCES

[1]. L Binderup, et al. 20-epi-vitamin D3 analogues: a novel class of potent regulators of cell growth and immune responses. *Biochem Pharmacol.* 1991 Sep 27;42(8):1569-75.

[2]. C Gysemans, et al. A combination of KH1060, a vitamin D(3) analogue, and cyclosporin prevents early graft failure and prolongs graft survival of xenogeneic islets in nonobese diabetic mice. *Transplant Proc.* 2001 May;33(3):2365.

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

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