Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Doxercalciferol

Catalog No: tcsc0395

Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
54573-75-0

Formula:
$C_{28}H_{44}O_2$

Pathway:
Vitamin D Related

Target:
VD/VDR

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
1.alpha.-Hydroxyvitamin D2

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Observed Molecular Weight:
412.65

Product Description

Doxercalciferol is a Vitamin D2 analog, acts as an activator of **Vitamin D receptor**, and prevent renal disease.

IC50 & Target: Vitamin D receptor[1]

In Vivo: Doxercalciferol (0.083, 0.167 or 0.333 μg/kg, i.p.) elevates serum phosphorus at Week 6 in 5/6 nephrectomized (NX) rats. Doxercalciferol (0.167 and 0.333 μg/kg) also increases serum calcium and Ca × P at Weeks 2 and 6, and enhances increased pulse wave velocity (PWV) at Week 6 in 5/6 nephrectomized (NX) rats. Doxercalciferol blocks PTH from rising at 0.083 μg/kg, and lowers serum PTH to the SHAM level[1]. Doxercalciferol (125 ng/kg, i.p. thrice per week) increases expression of VDR mRNA level and renal expression of TRPV5 in NON mice fed a HF diet. Doxercalciferol also improves proteinuria, prevents loss of podocytes, and accumulation of extracellular matrix proteins in HF diet-induced mice. Doxercalciferol inhibits the expression of profibrotic growth factors (TGF-β, PAI-1, and connective tissue growth factor (CTGF)), and blocks increased expression of the renin-angiotensin-aldosterone system in mice fed a HF diet. Furthermore, Doxercalciferol suppresses macrophage infiltration, decreases NF-κb activity, and preventes expression of proinflammatory cytokine and the increase in renal lipid accumulation in mice fed a HF diet[2]. Doxercalciferol (30 ng/kg, i.p. thrice per week) prevents albuminuria, markedly attenuates podocyte loss and apoptosis, and reduces glomerular fibrosis in streptozotocin-induced diabetic mice[3].