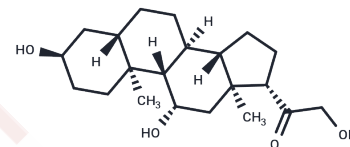


5 α -Tetrahydrocorticosterone

Chemical Properties

CAS No. : 600-63-5
 Formula: C₂₁H₃₄O₄
 Molecular Weight: 350.49
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	5 α -Tetrahydrocorticosterone (5 α -HB) is an endogenous steroid that acts as an agonist of the glucocorticoid receptor (GR) and a metabolite of corticosterone. It serves as an effective topical anti-inflammatory agent in vivo. In rat liver cells, it decreases the binding of metabolites to the glucocorticoid receptor-corticosterone and its 5 α -reduced metabolites, with a K _d value of 268 nM. 5 α -Tetrahydrocorticosterone is applicable in research on inflammatory skin diseases.
Targets(IC50)	Glucocorticoid Receptor,Endogenous Metabolite,Drug Metabolite
In vitro	5 α -Tetrahydrocorticosterone, at concentrations ranging from 0.001 to 100 μ M, reduces the binding of metabolites to glucocorticoid receptor-corticosterone and its 5 α -reduced metabolites in rat hepatocytes, with a K _d value of 268 nM. At a concentration of 1 μ M for 16 hours, it enhances the expression of TAT and PEPCK mRNA in H4IIE cells. Additionally, 5 α -Tetrahydrocorticosterone, when used at 1-10000 nM over 7 days, inhibits angiogenesis in mouse aortic rings in a concentration-dependent manner, with an EC ₅₀ value of 2512 nM. At 3 μ M, it increases the levels of Mcp1 and Per1, while it suppresses the expression of Pecam1 in aortic rings.
In vivo	5 α -Tetrahydrocorticosterone (administered at 5 mg/kg via intraperitoneal injection, single dose) exhibits glucocorticoid-like effects in mice that have undergone bilateral adrenalectomy. Additionally, 5 α -Tetrahydrocorticosterone (applied topically in doses of 25-200 μ g over 28 days) effectively inhibits ear swelling induced by croton oil in mice.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8531 mL	14.2657 mL	28.5315 mL
5 mM	0.5706 mL	2.8531 mL	5.7063 mL
10 mM	0.2853 mL	1.4266 mL	2.8531 mL
50 mM	0.0571 mL	0.2853 mL	0.5706 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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