

Product Data Sheet

Product Name: 11-Dehydrocorticosterone

Cat. No.: GC48710

Chemical Properties

Cas. No. 72-23-1

SMILES C[C@@]12[C@]3([H])[C@](CCC1=CC(CC2)=O)([H])[C@@]4([H])[C@](CC3=O)([C@H](CC4)C(CO)=O)C

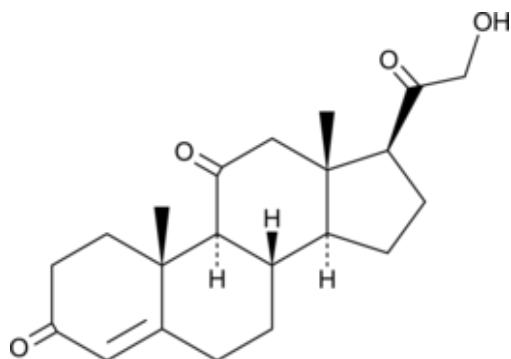
Formula C₂₁H₂₈O₄ M.Wt 344.4

Solubility DMF: 30 mg/mL; DMSO: 30 mg/mL; Storage -20°C
Ethanol: 5 mg/mL

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

11-Dehydrocorticosterone is an endogenous mineralocorticoid.^{1,2,3} It increases Na⁺/K⁺-ATPase mRNA expression in vascular smooth muscle cells and inhibits aldosterone action in *B. marinus* toad bladder tissue in a concentration-dependent manner.^{1,2} 11-Dehydrocorticosterone decreases the sodium/creatinine ratio and increases the potassium/creatinine ratio in rat urine in a dose-dependent manner in a model of 11β-hydroxysteroid dehydrogenase inhibition induced by carbenoxolone.³ Chronic administration 11-dehydrocorticosterone increases plasma glucocorticoids levels, body weight gain, and adiposity, as well as induces insulin resistance in mice.⁴

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

1.Muto, S., Nemoto, J., Ebata, S., et al.Corticosterone and 11-dehydrocorticosterone stimulate Na,K-ATPase gene expression in vascular smooth muscle cellsKidney Int.54(2)492-508(1998) 2.Brem, A.S., Matheson, K.L., Barnes, J.L., et al.11-Dehydrocorticosterone, a glucocorticoid metabolite, inhibits aldosterone action in toad bladderAm. J. Physiol.261(5)F873-F879(1991) 3.Souness, G.W., and Morris, D.J.11-Dehydrocorticosterone in the presence of carbenoxolone is a more potent sodium retainer than corticosteroneSteroids58(1)24-28(1993) 4.Harno, E., Cottrell, E.C., Keevil, B.G., et al.11-Dehydrocorticosterone causes metabolic syndrome, which is prevented when 11 β -HSD1 is knocked out in livers of male miceEndocrinology154(10)3599-3609(2013)

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA