

Product Data Sheet

Product Name: Hydrocortisone cypionate

Cat. No.: GC36268

Chemical Properties

Cas. No. 508-99-6

SMILES C[C@@]1([C@@]2(O)C(COC(=O)CCC3CCCC3)=O)[C@](CC2)([H])[C@@](CCC4=CC5=O)([H])[C@]([C@]4(CC5)C)([H])[C@@H](O)C1

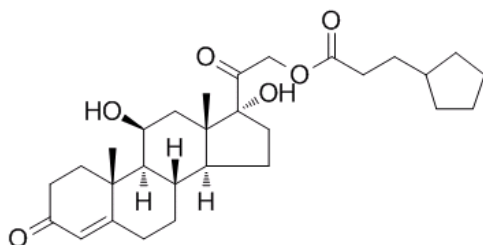
Formula $C_{29}H_{42}O_6$ M.Wt 486.64

Solubility DMSO: 125 mg/mL (256.86 mM) Storage Store at -20°C

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

Hydrocortisone cypionate is a synthetic glucocorticoid corticosteroid and a corticosteroid ester.

Hydrocortisone (50 nM) shows a dose-dependent down-regulation of GR transcript in hCMEC/D3 cells. Hydrocortisone supplementation of the serum-reduced cell differentiation medium leads to a significant increase in TER across the hCMEC/D3 monolayer[1]. Hydrocortisone-treated Dendritic cells (DCs) show a decreased expression of MHC II molecules, the costimulatory molecule CD86,

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and the DC-specific marker CD83, as well as a strongly reduced IL-12 secretion. Hydrocortisone-treated DCs inhibit production of IFN- γ but induce an increased release of IL-4 and no change in IL-5[2]. Hydrocortisone reduces postischemic oxidative stress, perfusion pressure, and transudate formation. Hydrocortisone inhibits postischemic shedding of syndecan-1, heparan sulfate, and hyaluronan as is release of histamine from resident mast cells[3].

[1]. Förster C, et al. Differential effects of hydrocortisone and TNF α on tight junction proteins in an in vitro model of the human blood-brain barrier. *J Physiol.* 2008 Apr 1;586(7):1937-49. [2]. Bellinghausen I, et al. Inhibition of human allergic T-cell responses by IL-10-treated dendritic cells: differences from hydrocortisone-treated dendritic cells. *J Allergy Clin Immunol.* 2001 Aug;108(2):242-9. [3]. Chappell D, et al. Hydrocortisone preserves the vascular barrier by protecting the endothelial glycocalyx. *Anesthesiology.* 2007 Nov;107(5):776-84.

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