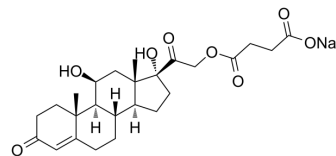


Hydrocortisone hemisuccinate sodium

Cat. No.:	HY-B1402B
CAS No.:	125-04-2
Molecular Formula:	C ₂₅ H ₃₃ NaO ₈
Molecular Weight:	484.51
Target:	Glucocorticoid Receptor
Pathway:	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Hydrocortisone hemisuccinate sodium is an orally active physiological glucocorticoid. Hydrocortisone hemisuccinate sodium inhibits proinflammatory cytokine activity, with IC ₅₀ s of 6.7 and 21.4 μM for IL-6 and IL-3, respectively. Hydrocortisone hemisuccinate sodium can be used for the research of ulcerative colitis (UC) ^[1] .
In Vitro	Hydrocortisone hemisuccinate sodium inhibits IL-6 and IL-3 bioactivity, with IC ₅₀ s of 6.7 and 21.4 μM, respectively, and shows no cytotoxic effects on IL-6-independent MH60 cells ^[3] . Hydrocortisone hemisuccinate sodium (0.12-60 μM; 72 h) inhibits phytohemagglutinin (PHA) response in peripheral lymphocytes (PBL) and T-lymphocytes cultures ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Hydrocortisone hemisuccinate sodium (30 mg/kg; p.o. twice daily for 5 d) reduces the weight loss and increases the food intake in mice ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Model:	Male Sprague-Dawley rats (200-220 g, 10-11 weeks) are induced colitis ^[2]
Dosage:	30 mg/kg
Administration:	P.o. twice daily for 5 days
Result:	Significantly decreased the disease activity index (DAI) scores and myeloperoxidase (MPO) activity compared to the 2, 4, 6-trinitrobenzenesulfonic acid (TNBS) group. Increased the body weight.

CUSTOMER VALIDATION

- Biomed Pharmacother. 2022 Jun 7;152:113243.

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REFERENCES

- [1]. Kang BS, et, al. Inhibitory effects of anti-inflammatory drugs on interleukin-6 bioactivity. Biol Pharm Bull. 2001 Jun;24(6):701-3.
- [2]. You YC, et, al. In vitro and in vivo application of pH-sensitive colon-targeting polysaccharide hydrogel used for ulcerative colitis therapy. Carbohydr Polym. 2015 Oct 5;130:243-53.
- [3]. Langhoff E, et, al. The immunosuppressive potency in vitro of physiological and synthetic steroids on lymphocyte cultures. Int J Immunopharmacol. 1987;9(4):469-73.
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Caution: Product has not been fully validated for medical applications. For research use only.

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