

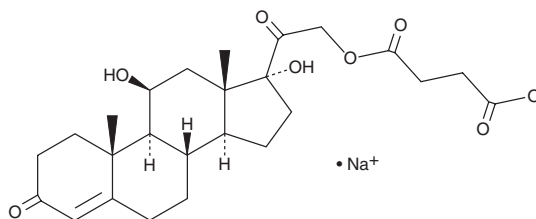
PRODUCT INFORMATION



Hydrocortisone 21-hemisuccinate (sodium salt)

Item No. 18226

CAS Registry No.: 125-04-2
Formal Name: 21-(3-carboxy-1-oxopropoxy)-11 β ,17-dihydroxy-pregn-4-ene-3,20-dione, monosodium salt
Synonyms: Cortisol 21-hemisuccinate, Hydrocortisone sodium succinate, ST51037292, U-4905
MF: C₂₅H₃₃O₈ • Na
FW: 484.5
Purity: \geq 98%
UV/Vis.: λ_{max} : 242 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Hydrocortisone 21-hemisuccinate (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the hydrocortisone 21-hemisuccinate (sodium salt) in the solvent of choice. Hydrocortisone 21-hemisuccinate (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of hydrocortisone 21-hemisuccinate (sodium salt) in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of hydrocortisone 21-hemisuccinate (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of hydrocortisone 21-hemisuccinate (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Hydrocortisone 21-hemisuccinate is a water-soluble form of the endogenous hormone cortisol. It can bind to glucocorticoid receptors, initiating the transcription of anti-inflammatory and immunosuppressive mediators and inhibiting proinflammatory cytokine activity (IC₅₀ = 6.7 μ M for IL-6).¹ It is commonly used to supplement media for long-term epithelial or endothelial cell cultures and to differentiate pluripotent stem cells.²

References

1. Kang, B.-S., Chung, E.-Y., Yun, Y.-P., *et al.* Inhibitory effects of anti-inflammatory drugs on interleukin-6 bioactivity. *Biol. Pharm. Bull.* **24(6)**, 701-703 (2001).
2. Whitehead, R.H. and Robinson, P.S. Establishment of conditionally immortalized epithelial cell lines from the intestinal tissue of adult normal and transgenic mice. *Am. J. Physiol. Gastrointest. Liver Physiol.* **296(3)**, G455-G460 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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