

PRODUCT INFORMATION



6 α -Methylprednisolone 21-hemisuccinate (sodium salt)

Item No. 35742

CAS Registry No.: 2375-03-3
Formal Name: (6 α ,11 β)-21-(3-carboxy-1-oxopropoxy)-11,17-dihydroxy-6-methyl-pregna-1,4-diene-3,20-dione, monosodium salt

Synonyms: Methylprednisolone 21-succinate, MPS, NSC 48989, U-9088

MF: C₂₆H₃₃O₈ • Na

FW: 496.5

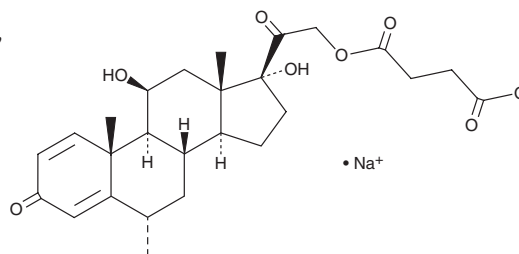
Purity: \geq 95%

UV/Vis.: λ_{max} : 242 nm

Supplied as: A 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

6 α -Methylprednisolone 21-hemisuccinate (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the 6 α -methylprednisolone 21-hemisuccinate (sodium salt) in the solvent of choice, which should be purged with an inert gas. 6 α -Methylprednisolone 21-hemisuccinate (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of 6 α -methylprednisolone 21-hemisuccinate (sodium salt) in these solvents is approximately 5 and 10 mg/ml, respectively. 6 α -Methylprednisolone 21-hemisuccinate (sodium salt) is also slightly soluble in ethanol.

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 6 α -methylprednisolone 21-hemisuccinate (sodium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 6 α -methylprednisolone 21-hemisuccinate (sodium salt) in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

6 α -Methylprednisolone 21-hemisuccinate is a prodrug form of the synthetic glucocorticoid methylprednisolone (Item No. 15013).¹ It is converted to methylprednisolone by carboxylesterase 2 (CES2).² Nanoliposomes containing 6 α -methylprednisolone 21-hemisuccinate decrease disease severity in a rat model of adjuvant-induced arthritis.³ Formulations containing 6 α -methylprednisolone 21-hemisuccinate have been used as anti-inflammatory agents and immunosuppressants with indications in allergic reactions and dermatologic, renal, gastrointestinal, respiratory, and ophthalmic diseases, as well as endocrine, hematologic, and rheumatic disorders.

References

1. Vree, T.B., Lagerwerf, A.J., Verwey-van Wissen, C.P., et al. *J. Chromatogr. B Biomed. Sci. Appl.* **732**(2), 337-348 (1999).
2. Hori, T., Jin, L., Fujii, A., et al. *Xenobiotica* **42**(7), 614-623 (2012).
3. Avnir, Y., Ulmansky, R., Wasserman, V., et al. *Arthritis Rheum.* **58**(1), 119-129 (2008).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/23/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM