

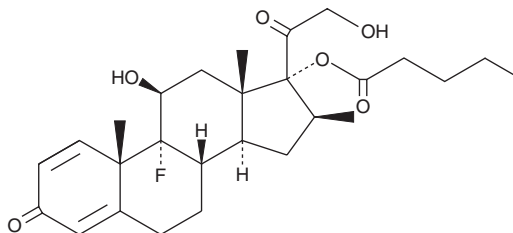
PRODUCT INFORMATION



Betamethasone 17-valerate

Item No. 25640

CAS Registry No.: 2152-44-5
Formal Name: 9-fluoro-11 β ,21-dihydroxy-16 β -methyl-17-[(1-oxopentyl)oxy]-pregna-1,4-diene-3,20-dione
MF: C₂₇H₃₇FO₆
FW: 476.6
Purity: \geq 98%
UV/Vis.: λ_{max} : 240 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

Betamethasone 17-valerate is supplied as a crystalline solid. A stock solution may be made by dissolving the betamethasone 17-valerate in the solvent of choice. Betamethasone 17-valerate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of betamethasone 17-valerate in these solvents is approximately 3, 30, and 25 mg/ml, respectively.

Betamethasone 17-valerate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, betamethasone 17-valerate should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Betamethasone 17-valerate has a solubility of approximately 0.1 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Betamethasone 17-valerate is a glucocorticoid with anti-inflammatory activity.^{1,2} It inhibits the binding of the radiolabeled glucocorticoid dexamethasone to human epidermis and mouse skin (IC₅₀s = 5 and 6 nM, respectively).¹ Topical application of betamethasone 17-valerate ointment (0.12%) blocks increases in ear weight in a rat model of ear edema induced by croton oil.² Formulations containing betamethasone 17-valerate have been used in the treatment of corticosteroid-responsive dermatoses of the scalp.

References

1. Epstein, E.H., Jr. and Bonifas, J.M. Glucocorticoid receptors of normal human epidermis. *J. Invest. Dermatol.* **78**(2), 144-146 (1982).
2. Iizuka, Y., Endo, Y., and Misawa, Y. Two simple methods for the evaluation of topically active anti-inflammatory steroidal ointments. *Agents Actions* **11**(3), 254-259 (1981).

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

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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