

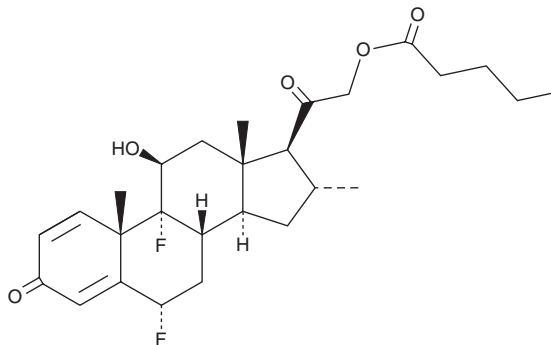
PRODUCT INFORMATION



Diflucortolone 21-valerate

Item No. 33203

CAS Registry No.: 59198-70-8
Formal Name: 6 α ,9-difluoro-11 β -hydroxy-16 α -methyl-21-[(1-oxopentyl)oxy]-pregna-1,4-diene-3,20-dione
MF: C₂₇H₃₆F₂O₅
FW: 478.6
Purity: \geq 98%
UV/Vis.: λ_{max} : 237 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

Diflucortolone 21-valerate is supplied as a crystalline solid. A stock solution may be made by dissolving the diflucortolone 21-valerate in the solvent of choice, which should be purged with an inert gas. Diflucortolone 21-valerate is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of diflucortolone 21-valerate in these solvents is approximately 10 and 30 mg/ml, respectively.

Diflucortolone 21-valerate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, diflucortolone 21-valerate should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Diflucortolone 21-valerate has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Diflucortolone 21-valerate is a glucocorticoid.¹ It has anti-inflammatory effects in a rat model of croton oil-induced ear edema when applied topically (ED₅₀ = 9.7 μ g/ml).² Diflucortolone 21-valerate (0.1%) also induces skin inflammation and thins the epidermis in hairless dogs following chronic topical administration and increases allergic- and non-allergic-mediated skin inflammation in mouse models of atopic dermatitis when applied topically prior to and following sensitization.^{1,3} Formulations containing diflucortolone 21-valerate have been used in the treatment of inflammatory or allergic skin conditions.

References

1. Igawa, K., Katayama, I., Minatohara, K., *et al.* Topical glucocorticoid augments both allergic and non-allergic cutaneous reactions in mice when applied at the afferent stage of contact sensitivity. *Allergol. Int.* **46(1)**, 33-41 (1997).
2. Yamada, K., Hattori, S., Hakoda, T., *et al.* A fundamental study on a bioassay for the antiphlogistic effect of topically applied antiinflammatory agents *Nihon Yakurigaku Zasshi* **75(8)**, 789-798 (1979).
3. Kimura, T. and Doi, K. Dorsal skin reactions of hairless dogs to topical treatment with corticosteroids. *Toxicol. Pathol.* **27(5)**, 528-535 (1999).

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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