

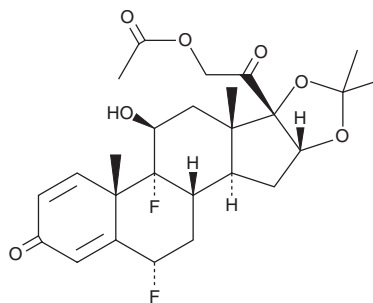
PRODUCT INFORMATION



Fluocinonide

Item No. 23803

CAS Registry No.: 356-12-7
Formal Name: 21-(acetyloxy)-6 α ,9-difluoro-11 β -hydroxy-16 α ,17-[(1-methylethylidene)bis(oxy)]-pregna-1,4-diene-3,20-dione
Synonym: NSC 101791
MF: C₂₆H₃₂F₂O₇
FW: 494.5
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

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

Fluocinonide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, fluocinonide should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Fluocinonide has a solubility of approximately 0.2 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Fluocinonide is a synthetic fluorinated corticosteroid that binds to the glucocorticoid receptor and has anti-inflammatory properties.^{1,2} It prevents inflammation and epidermal cell proliferation induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014). Fluocinonide inhibits tumor promotion and DNA synthesis in mouse epidermis when applied topically at a dose of 10 μ g/0.2 ml. It also acts as an agonist at the smoothened (Smo) receptor with an EC₅₀ value of 1,000 nM in a ligand displacement assay in cells overexpressing the Smo receptor.³ Formulations containing fluocinonide are used in the treatment of various skin conditions, including psoriasis and atopic dermatitis.

References

1. Avery, A.M. and Chittiboyina, A.G. Anti-inflammatory glucocorticoids. *Burger's medicinal chemistry, drug discovery and development* 7, 35-152 (2010).
2. Viaje, A., Slaga, T.J., Wigler, M., et al. Effects of antiinflammatory agents on mouse skin tumor promotion, epidermal DNA synthesis, phorbol ester-induced cellular proliferation, and production of plasminogen activator. *Cancer Res.* 37(5), 1530-1536 (1977).
3. Wang, J., Barak, L.S., Mook, R.A., Jr., et al. Glucocorticoid hedgehog agonists in neurogenesis. *Stem Cell Regulators* 87, 207-215 (2011).

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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