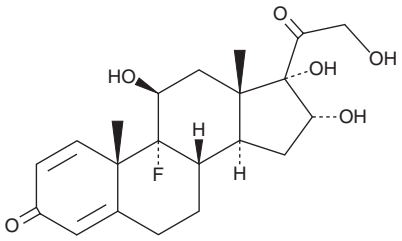
PRODUCT INFORMATION

Triamcinolone

Item No. 28275

CAS Registry No.:	124-94-7
Formal Name:	(11β,16α)-9-fluoro-11,16,17,21-tetrahydroxy-pregna-1,4-diene-3,20-dione
Synonym:	NSC 13397
MF:	$C_{21}H_{27}FO_6$
FW:	394.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 240 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Triamcinolone is supplied as a crystalline solid. A stock solution may be made by dissolving the triamcinolone in the solvent of choice, which should be purged with an inert gas. Triamcinolone is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of triamcinolone in these solvents is approximately 15 and 25 mg/ml, respectively.

Triamcinolone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, triamcinolone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Triamcinolone has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Triamcinolone is a synthetic glucocorticoid.[1,2] It increases expression of the calcitonin receptor in murine osteoclast-like cells when used at a concentration of 1 µM.[3] Triamcinolone (3 mg/kg, s.c.) reduces heat hyperalgesia and mechano-allodynia and decreases the number of TNF-α-positive mast cells in injured sciatic nerve in a rat model of chronic constriction injury-induced neuropathic pain.[1] It also reduces levels of the glycosaminoglycans hyaluronic acid and chondroitin-4-sulfate in human keloid implants in athymic nude mice.[4]

References

1. Hayashi, R., Xiao, W., Kawamoto, M., *et al.* Systemic glucocorticoid therapy reduces pain and the number of endoneurial tumor necrosis factor-alpha (TNFα)-positive mast cells in rats with a painful peripheral neuropathy. *J. Pharmacol. Sci.* **106(4),** 599-565 (2008).
2. Uete, T. and Ashmore, J. Effects of triamcinolone on carbohydrate synthesis by rat liver slices. *J. Biol. Chem.* **238(9),** 2906-2911 (1963).
3. Wada, S., Udagawa, N., Akatsu, T., *et al.* Regulation by calcitonin and glucocorticoids of calcitonin receptor gene expression in mouse osteoclasts. *Endocrinology* **138(2),** 521-529 (1997).
4. Shetlar, M.R., Shetlar, D.J., Bloom, R.F., *et al.* Involution of keloid implants in athymic mice treated with pirfenidone or with triamcinolone. *J. Lab Clin. Med.* **132(6),** 491-496 (1998).

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