

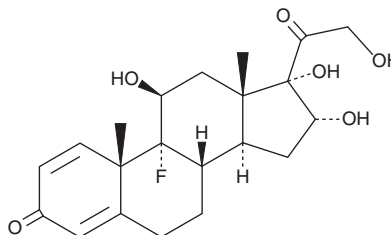
PRODUCT INFORMATION



Triamcinolone

Item No. 28275

CAS Registry No.: 124-94-7
Formal Name: (11 β ,16 α)-9-fluoro-11,16,17,21-tetrahydroxy-pregna-1,4-diene-3,20-dione
Synonyms: NSC 13397, TRI
MF: C₂₁H₂₇FO₆
FW: 394.4
Purity: $\geq 98\%$
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 (GAGs) hyaluronic acid and chondroitin-4-sulfate in human keloid implants in athymic nude mice.⁴ Triamcinolone has been used in the formation of lipid nanoparticles (LNPs) for the delivery of mRNA *in vitro* and *in vivo*.⁵ LNPs containing triamcinolone and encapsulating reporter mRNA reduce LNP-induced increases in the serum levels of inflammatory cytokines in mice to a greater extent than LNPs that do not contain triamcinolone. LNPs containing triamcinolone and encapsulating MOG₃₅₋₅₅ mRNA reduce spinal cord CD3⁺ T cell infiltration and disease severity in a mouse model of experimental autoimmune encephalomyelitis (EAE).

References

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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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