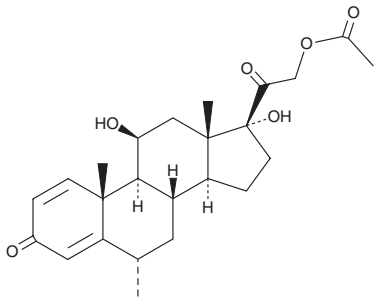
PRODUCT INFORMATION

6α-Methylprednisolone 21-acetate

Item No. 35799

CAS Registry No.:	53-36-1
Formal Name:	21-(acetyloxy)-11β,17-dihydroxy-6α-methyl-pregna-1,4-diene-3,20-dione
Synonyms:	Methylprednisolone Acetate, MPA, NSC 48985, U-8210
MF:	$C_{24}H_{32}O_6$
FW:	416.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 243 nm
Supplied as:	A 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

6α-Methylprednisolone 21-acetate is supplied as a solid. A stock solution may be made by dissolving the 6α-methylprednisolone 21-acetate in the solvent of choice, which should be purged with an inert gas. 6α-Methylprednisolone 21-acetate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 6α-methylprednisolone 21-acetate in ethanol is approximately 2 mg/ml and approximately 5 mg/ml in DMSO and DMF.

Description

6α-Methylprednisolone 21-acetate is a synthetic glucocorticoid and an ester form of methylprednisolone (Item No. 15013).[1] It reduces IL-1β-induced production of prostaglandin E_2 (PGE_2; Item No. 14010) and increases in matrix metalloproteinase-13 (MMP-13) levels in equine osteochondral and synovial explant cocultures when used at concentrations ranging from 1 to 100 nM. Intramuscular injection of 6α-methylprednisolone 21-acetate (20 mg/kg) induces retinal lipid peroxidation and apoptosis in rabbits.[2] Formulations containing 6α-methylprednisolone 21-acetate have been used in the treatment of joint pain and swelling associated with arthritis.

References

1. Trahan, R.A., Byron, C.R., Dahlgren, L.A., *et al.* In vitro effects of three equimolar concentrations of methylprednisolone acetate, triamcinolone acetonide, and isoflupredone acetate on equine articular tissue cocultures in an inflammatory environment. *Am. J. Vet. Res.* **79(9)**, 933-940 (2018).
2. Yildiz, A., Şehitoğlu, M.H., Karaboğa, İ., *et al.* Ozone treatment for high-dose systemic steroid-induced retinal injury. *Cutan. Ocul. Toxicol.* **39(3)**, 274-280 (2020).

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