

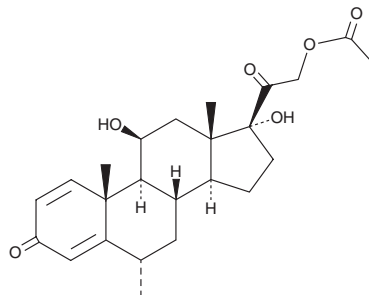
# PRODUCT INFORMATION



## 6 $\alpha$ -Methylprednisolone 21-acetate

Item No. 35799

**CAS Registry No.:** 53-36-1  
**Formal Name:** 21-(acetyloxy)-11 $\beta$ ,17-dihydroxy-6 $\alpha$ -methyl-pregna-1,4-diene-3,20-dione  
**Synonyms:** Methylprednisolone Acetate, MPA, NSC 48985, U-8210  
**MF:** C<sub>24</sub>H<sub>32</sub>O<sub>6</sub>  
**FW:** 416.5  
**Purity:**  $\geq 95\%$   
**UV/Vis.:**  $\lambda_{\text{max}}$ : 243 nm  
**Supplied as:** A 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

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

### Description

6 $\alpha$ -Methylprednisolone 21-acetate is a synthetic glucocorticoid and an ester form of methylprednisolone (Item No. 15013).<sup>1</sup> It reduces IL-1 $\beta$ -induced production of prostaglandin E<sub>2</sub> (PGE<sub>2</sub>; 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 6 $\alpha$ -methylprednisolone 21-acetate (20 mg/kg) induces retinal lipid peroxidation and apoptosis in rabbits.<sup>2</sup> Formulations containing 6 $\alpha$ -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).

#### 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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