

**Product Name:** Methylprednisolone

**Catalog No.:** 4819 **Batch No.:** 1

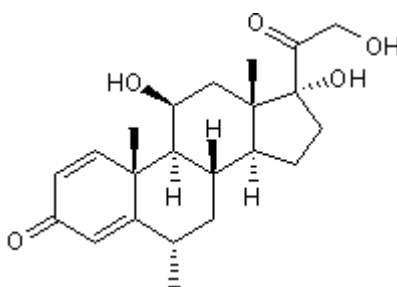
**CAS Number:** 83-43-2

**EC Number:** 201-476-4

**IUPAC Name:** 11 $\beta$ ,17 $\beta$ ,21-Trihydroxy-6 $\alpha$ -methyl-1,4-pregnadiene-3,20-dione

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>22</sub>H<sub>30</sub>O<sub>5</sub>  
**Batch Molecular Weight:** 374.47  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	70.56	8.07	
Found	70.63	8.15	

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**Description:**

Glucocorticoid receptor (GR) agonist. Displays anti-inflammatory and antioxidant properties. Attenuates apoptosis in oligodendrocytes after injury stimuli. Upregulates expression of Bcl-x<sub>L</sub> via direct binding of the GR/STAT5 complex. Neuroprotective.

**Physical and Chemical Properties:**

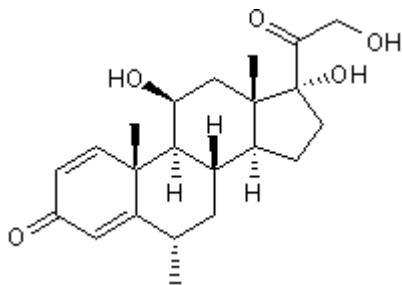
Batch Molecular Formula: C<sub>22</sub>H<sub>30</sub>O<sub>5</sub>

Batch Molecular Weight: 374.47

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Lee et al** (2008) Methylprednisolone protects oligodendrocytes but not neurons after spinal cord injury. *J.Neurosci.* **29** 3141. PMID: 18354017.

**Xu et al** (2009) STAT5 mediates antiapoptotic effects of methylprednisolone on oligodendrocytes. *J.Neurosci.* **29** 2022. PMID: 19228956.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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