

Product Name: Methylprednisolone

Catalog No.: 4819

Batch No.: 2

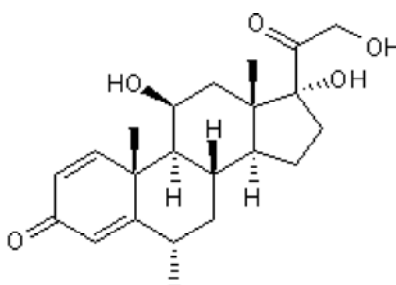
CAS Number: 83-43-2

EC Number: 201-476-4

IUPAC Name: 11 β ,17 β ,21-Trihydroxy-6 α -methyl-1,4-pregnadiene-3,20-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₂H₃₀O₅
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 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +79.2 (Concentration = 1, Solvent = 1,4-Dioxane)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.56	8.07	
Found	70.2	8.05	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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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_L via direct binding of the GR/STAT5 complex. Neuroprotective.

Physical and Chemical Properties:

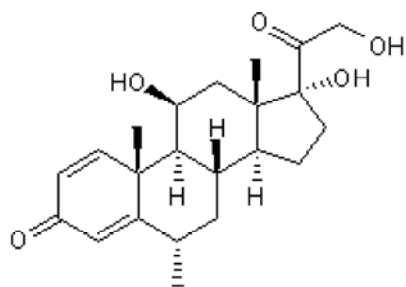
Batch Molecular Formula: C₂₂H₃₀O₅

Batch Molecular Weight: 374.47

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



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.

Licensing Information:

Sold for research purposes under agreement from Pfizer Inc.

References:

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

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

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