Methylprednisolone
Item No. 15013

CAS Registry No.: 83-43-2
Formal Name: 11β,17,21-trihydroxy-6α-methylpregna-1,4-diene-3,20-dione
Synonyms: Medesone, Medrol, Noretona, NSC 19987, U 7532
MF: C_{22}H_{30}O_{5}
FW: 374.5
Purity: ≥ 98%
Stability: ≥ 2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max} 243 nm

Laboratory Procedures

For long term storage, we suggest that methylprednisolone be stored as supplied at -20°C. It should be stable for at least two years.

Methylprednisolone is supplied as a crystalline solid. A stock solution may be made by dissolving the methylprednisolone in the solvent of choice. Methylprednisolone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of methylprednisolone in ethanol is approximately 5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Methylprednisolone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, methylprednisolone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Methylprednisolone has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Prednisolone is the active metabolite of the synthetic corticosteroid prednisone, which is used to suppress inflammation and autoimmunity, as well as in other conditions. Methylprednisolone is a 6α-methyl derivative of prednisolone, a variation which reduces its binding to corticosteroid-binding globulin and increases penetration into target tissues. It alters gene expression, like prednisolone, through both the glucocorticoid and mineralocorticoid receptors.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/15013

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

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