PRODUCT INFORMATION

Methylprednisolone

Item No. 15013

CAS Registry No.: 83-43-2
Formal Name: 11β,17,21-trihydroxy-6α-methyl-pregna-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%
UV/Vis.: λ_{max}: 243 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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.

Description

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