

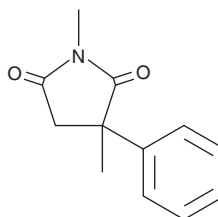
PRODUCT INFORMATION



Methsuximide

Item No. 19058

CAS Registry No.: 77-41-8
Formal Name: 1,3-dimethyl-3-phenyl-2,5-pyrrolidinedione
Synonyms: (±)-Mesuximide,
N,2-dimethyl-2-Phenylsuccinimide, PM 396
MF: C₁₂H₁₃NO₂
FW: 203.2
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Methsuximide is supplied as a crystalline solid. A stock solution may be made by dissolving the methsuximide in the solvent of choice, which should be purged with an inert gas. Methsuximide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of methsuximide in ethanol and DMF is approximately 25 mg/ml and approximately 30 mg/ml in DMSO.

Methsuximide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, methsuximide should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Methsuximide has a solubility of approximately 0.02 mg/ml in a 1:40 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Methsuximide is an anticonvulsant.¹ It is a substrate for the cytochrome P450 (CYP) isoform CYP2C19 and inhibits the metabolism of chlorproguanil and proguanil (Item No. 30675) when used at a concentration of 100 µM.² Methsuximide (100 mg/kg) protects against leptazol-induced convulsions in rats.¹ Formulations containing methsuximide have been used in the treatment of petit mal seizures.

References

1. Nicholls, P.J. and Orton, T.C. The physiological disposition of ¹⁴C-methsuximide in the rat. *Br. J. Pharmacol.* **45(1)**, 48-59 (1972).
2. Wright, J.D., Helsby, N.A., and Ward, S.A. The role of S-mephenytoin hydroxylase (CYP2C19) in the metabolism of the antimalarial biguanides. *Br. J. Clin. Pharmacol.* **39(4)**, 441-444 (1995).

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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