

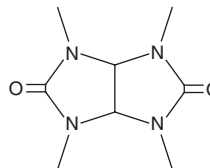
PRODUCT INFORMATION



Mebicar

Item No. 34606

CAS Registry No.: 10095-06-4
Formal Name: tetrahydro-1,3,4,6-tetramethyl-imidazo[4,5-d]imidazole-2,5(1H,3H)-dione
Synonym: Mebikar
MF: C₈H₁₄N₄O₂
FW: 198.2
Purity: ≥95%
Supplied as: A 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

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

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of mebicar can be prepared by directly dissolving the solid in aqueous buffers. The solubility of mebicar in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Mebicar is an anxiolytic with antiepileptic activity.^{1,2} *In vivo*, mebicar (10 mg/kg) reduces anxiety-like behavior and decreases stress-induced increases in serum corticosterone and pro-inflammatory cytokine levels in a mouse model of intermittent unpredictable stress.¹ It inhibits epileptic activity in a rat model of penicillin-induced focal epilepsy.²

References

1. Kim, C.Y., Kim, Y.G., Sin, S.J., *et al.* Preventive effect of mebicar and ginsenoside Rg1 on neurobehavioral and immunological disruptions caused by intermittent unpredictable stress in mice. *NeuroImmunoModulation* **25(1)**, 49-58 (2018).
2. Rekhman, M.B., Torshin, V.I., and Darinskii, N.V. Effect of mebicar on focal epileptic activity. *Biull. Eksp. Biol. Med.* **91(2)**, 178-181 (1981).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/22/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM