

# Produktinformation



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# 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:  $C_8H_{14}N_4O_2$ 198.2 FW: ≥95% **Purity:** Supplied as: A solid Storage: -20°C Stability: ≥2 vears

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.<sup>1,2</sup> 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. It inhibits epileptic activity in a rat model of penicillin-induced focal epilepsy.<sup>2</sup>

#### 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. Rekhtman, M.B., Torshin, V.I., and Darinskii, N.V. Effect of mebikar 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.

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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