

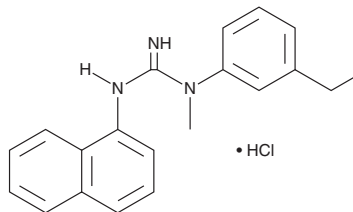
PRODUCT INFORMATION



Cerestat

Item No. 30966

CAS Registry No.: 137160-11-3
Formal Name: N-(3-ethylphenyl)-N-methyl-N'-1-naphthalenyl-guanidine, monohydrochloride
Synonym: CNS 1102
MF: C₂₀H₂₁N₃ • HCl
FW: 339.9
Purity: ≥98%
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

Cerestat is supplied as a solid. A stock solution may be made by dissolving the cerestat in the solvent of choice, which should be purged with an inert gas. Cerestat is soluble in the organic solvent DMSO. It is also soluble in water. The solubility of cerestat in DMSO and water is approximately 50 and 100 mM, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

Cerestat is an NMDA receptor antagonist (IC₅₀ = 36 nM).¹ It is selective for the NMDA receptor over sigma receptors (IC₅₀ = 2,540 nM). Cerestat (1 mg/kg) reduces infarct volume and the number of steps and errors in a foot fault test in a rat model of stroke induced by middle cerebral artery occlusion.² It also reduces cortical and striatal neuronal necrosis in a rat model of temporary focal ischemia when administered at a dose of 1.13 mg/kg.³

References

1. Reddy, N.L., Hu, L.-Y., Cotter, R.E., *et al.* Synthesis and structure-activity studies of *N,N'*-diarylguanidine derivatives. *N*-(1-naphthyl)-*N'*-(3-ethylphenyl)-*N'*-methylguanidine: A new, selective noncompetitive NMDA receptor antagonist. *J. Med. Chem.* **37**(2), 260-267 (1994).
2. Pitsikas, N., Brambilla, A., Besozzi, C., *et al.* Effects of cerestat and NBQX on functional and morphological outcomes in rat focal cerebral ischemia. *Pharmacol. Biochem. Behav.* **68**(3), 443-447 (2000).
3. Schäbitz, W.R., Li, F., and Fisher, M. The *N*-methyl-D-aspartate antagonist CNS 1102 protects cerebral gray and white matter from ischemic injury following temporary focal ischemia in rats. *Stroke* **31**(7), 1709-1714 (2000).

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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