

Certificate of Analysis

Product Name: Cerestat

Catalog No.: 4492

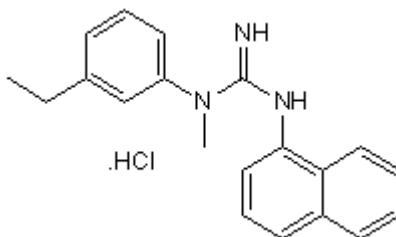
Batch No.: 1

CAS Number: 137160-11-3

IUPAC Name: *N*-(3-Ethylphenyl)-*N*-methyl-*N*-1-naphthalenylguanidine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₁N₃·HCl
Batch Molecular Weight: 339.86
Physical Appearance: Off White solid
Solubility: water to 50 mM
 DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.68	6.52	12.36
Found	70.73	6.56	12.46

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name: Cerestat

Catalog No.: 4492

Batch No.: 1

CAS Number: 137160-11-3

IUPAC Name: *N*-(3-Ethylphenyl)-*N*-methyl-*N'*-1-naphthalenylguanidine hydrochloride

Description:

Potent and noncompetitive NMDA receptor antagonist ($IC_{50} = 36$ nM). Exhibits >70-fold selectivity for NMDA receptor over σ receptor. Neuroprotective in a rat model of focal ischemia.

Physical and Chemical Properties:

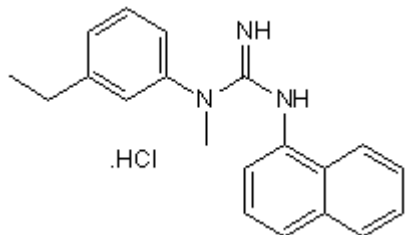
Batch Molecular Formula: $C_{20}H_{21}N_3 \cdot HCl$

Batch Molecular Weight: 339.86

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

water to 50 mM
DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Reddy et al (1994) 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** 260. PMID: 8295213.

Schäbitz et al (2000) 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** 1709. PMID: 10884477.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956