TOCRIS
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Print Date: Jan 15th 2016

Certificate of Analysis

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Product Name: **Remacemide hydrochloride** **Catalog No.: 1622** **Batch No.: 1**

CAS Number: 111686-79-4

IUPAC Name: 2-Amino-*N*-(1-methyl-1,2-diphenylethyl)acetamide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{20}N_2O.HCl$

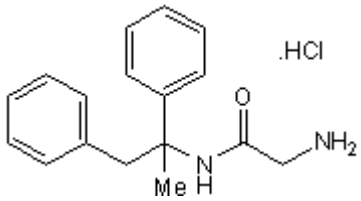
Batch Molecular Weight: 304.82

Physical Appearance: White solid

Solubility: water to 100 mM
phosphate buffered saline to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.25 (Dichloromethane:Methanol [9:1])

Melting Point: Between 251 - 252°C

HPLC: Shows >99.5% purity

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.99	6.94	9.19
Found	66.85	6.96	9.16

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Description:

Non-competitive NMDA receptor antagonist; blocks ion channel and allosteric modulatory site (IC_{50} = 8 - 68 mM). Anticonvulsant in vivo and metabolizes to a more potent desglycine analog. Weakly blocks voltage-dependent Na^+ channels (IC_{50} = 161 mM).

Physical and Chemical Properties:

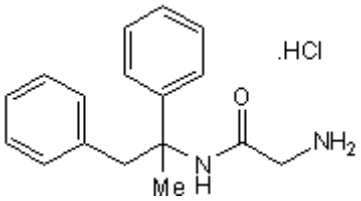
Batch Molecular Formula: $C_{17}H_{20}N_2O.HCl$

Batch Molecular Weight: 304.82

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM
phosphate buffered saline to 50 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:

Palmer *et al* (1995) Neuroprotective properties of the uncompetitive NMDA receptor antagonist remacemide hydrochloride. Ann.N.Y.Acad.Sci. ***765*** 236. PMID: 7486610.

Subramaniam *et al* (1996) Block of the N-methyl-D-aspartate receptor by remacemide and its *des*-glycine metabolite. J.Pharmacol.Exp.Ther. ***276*** 161. PMID: 8558426.

Santangeli *et al* (2002) Na^+ channel effects of remacemide and desglycinyl-remacemide in rat cortical synaptosomes. Eur.J.Pharmacol. ***438*** 63. PMID: 11906711.