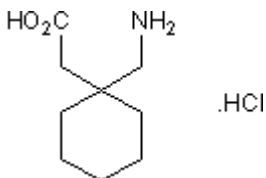


Product Name: Gabapentin hydrochloride
CAS Number: 60142-96-3
IUPAC Name: 1-(Aminomethyl)cyclohexanecarboxylic acid hydrochloride

Catalog No.: 0806 **Batch No.:** 8
EC Number: 262-076-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₁₇NO₂.HCl
Batch Molecular Weight: 207.7
Physical Appearance: White crystalline solid
Solubility: water to 100 mM with gentle warming
 phosphate buffered saline to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])
Melting Point: Between 135 - 136°C
HPLC: Shows >99% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	52.05	8.73	6.74	17.07
Found	52.07	8.9	6.68	16.91

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

Product Name: Gabapentin hydrochloride

Catalog No.: 0806

Batch No.: 8

CAS Number: 60142-96-3

EC Number: 262-076-3

IUPAC Name: 1-(Aminomethyl)cyclohexaneacetic acid hydrochloride

Description:

Anticonvulsant with several possible mechanisms of action. Increases GABA in the brain and binds to a novel site associated with voltage-sensitive Ca²⁺ channels. Prevents neuronal death and is antinociceptive and anxiolytic.

Physical and Chemical Properties:

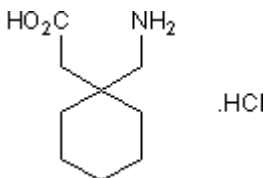
Batch Molecular Formula: C₉H₁₇NO₂.HCl

Batch Molecular Weight: 207.7

Physical Appearance: White crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 100 mM with gentle warming
phosphate buffered saline 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:

Upton (1994) Mechanisms of action of new antiepileptic drugs: rational design and serendipitous findings. *TIPS* **15** 456. PMID: 7886818.

Taylor et al (1998) A summary of mechanistic hypotheses of gabapentin pharmacology. *Epilepsy Res.* **29** 233. PMID: 9551785.

Timmerman et al (2000) A microdialysis study on the mechanism of action of gabapentin. *Eur.J.Pharmacol.* **398** 53. PMID: 10856447.

Fink et al (2000) Inhibition of Ca²⁺ influx by gabapentin and subsequent reduction of neurotransmitter release from rat neocortical slices. *Br.J.Pharmacol.* **130** 900. PMID: 10864898.

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