

Certificate of Analysis

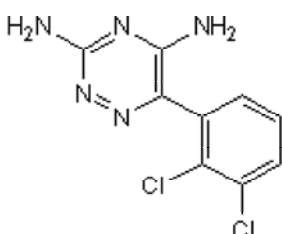
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Product Name: Lamotrigine
CAS Number: 84057-84-1
IUPAC Name: 6-(2,3-Dichlorophenyl)-1,2,4-triazine-3,5-diamine

Catalog No.: 1611 **Batch No.:** 3
EC Number: 281-901-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₇Cl₂N₅
Batch Molecular Weight: 256.09
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100.0% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	42.21	2.75	27.35
Found	41.95	2.74	27.31

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

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IUPAC Name: 6-(2,3-Dichlorophenyl)-1,2,4-triazine-3,5-diamine

Description:

Anticonvulsant. Inhibits glutamate release, possibly through inhibition of Na⁺, K⁺ and Ca²⁺ currents. Also blocks heterologously expressed and native $\alpha 4\beta 2$ nAChRs with a similar affinity to Na⁺ channels. Water-soluble Salt also available.

Physical and Chemical Properties:

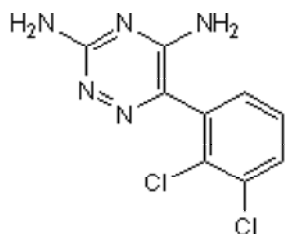
Batch Molecular Formula: C₉H₇Cl₂N₅

Batch Molecular Weight: 256.09

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Zheng et al (2010) The anticonvulsive drug lamotr. blocks neuronal $\alpha 4\beta 2$ nicotinic acetylcholine receptors. *J.Pharmacol.Exp.Ther.* **335** 401. PMID: 20688974.

Grunze et al (1998) Modulation of calcium and potassium currents by lamotr. *Neuropsychobiology* **38** 131. PMID: 9778600.

Zona and Avoli (1997) Lamotrigine reduces voltage-gated sodium currents in rat central neurons in culture. *Epilepsia* **38** 522. PMID: 9184596.

Storage: Store at RT

Solubility & Usage Info:

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.

Licensing Information:

Sold for research purposes under agreement from GlaxoSmithKline

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