



LKT Laboratories, Inc.

Lamotrigine

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Product Information

Product ID L0349

CAS No. 84057-84-1

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

Synonym

Formula C₉H₇Cl₂N₅

Formula Wt. 256.09

Melting Point 216-218 °C

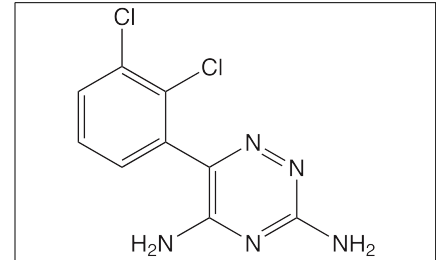
Purity ≥98%

Solubility Warm DMSO to 20 mg/mL,
warm ethanol to 25 mM,
methanol

Store Temp Ambient

Ship Temp Ambient

Description Lamotrigine exhibits antiepileptic/anticonvulsant, antidepressant, antinociceptive, and anxiolytic activities. Lamotrigine inhibits R-type Cav2.3 voltage-gated Ca²⁺ channels and voltage-gated Na⁺ channels, suppressing release of glutamate. In animals undergoing the forced swim test, lamotrigine decreases immobility time. Lamotrigine also increases pain thresholds in the formalin test and displays anxiolytic properties in the conditioned emotional response test. Lamotrigine may also exhibit anti-inflammatory activity, as it decreases levels of IL-1β, IL-2, and TNF-α in vitro.



Bulk quantities available upon request

Product ID	Size
L0349	25 mg
L0349	100 mg
L0349	500 mg

References Himmerich H, Bartsch S, Hamer H, et al. Impact of mood stabilizers and antiepileptic drugs on cytokine production in-vitro. J Psychiatr Res. 2013 Nov;47(11):1751-9. PMID: 23978396.

Dibué M, Kamp MA, Alpdogan S, et al. Cav 2.3 (R-type) calcium channels are critical for mediating anticonvulsive and neuroprotective properties of lamotrigine in vivo. Epilepsia. 2013 Sep;54(9):1542-50. PMID: 23772876.

Munro G, Erichsen HK, Mirza NR. Pharmacological comparison of anticonvulsant drugs in animal models of persistent pain and anxiety. Neuropharmacology. 2007 Oct;53(5):609-18. PMID: 17714743.

Kaster MP, Raupp I, Binfaré RW, et al. Antidepressant-like effect of lamotrigine in the mouse forced swimming test: evidence for the involvement of the noradrenergic system. Eur J Pharmacol. 2007 Jun 22;565(1-3):119-24. PMID: 17433291.

Leach MJ, Marden CM, Miller AA. Pharmacological studies on lamotrigine, a novel potential antiepileptic drug: II. Neurochemical studies on the mechanism of action. Epilepsia. 1986 Sep-Oct;27(5):490-7. PMID: 3757936.

Ookubo M, Kanai H, Aoki H, Yamada N. Antidepressants and mood stabilizers effects on histone deacetylase expression in C57BL/6 mice: brain region specific changes. J Psychiatr Res. 2013 Sep;47(9):1204-1214. PMID: 23777937.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.