



LKT Laboratories, Inc.

Aniracetam

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Product Information

Product ID A5326

CAS No. 72432-10-1

Chemical Name 1-(4-Methoxybenzoyl)-2-pyrrolidinone

Synonym Ro-13-5057, Draganon, Sarpul

Formula C₁₂H₁₃NO₃

Formula Wt. 219.24

Melting Point 121-122 °C

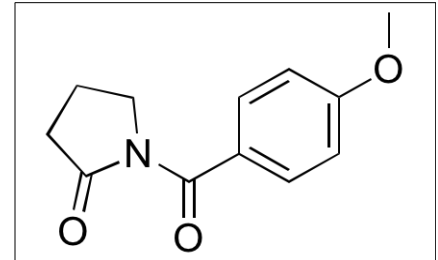
Purity ≥98%

Solubility Soluble in chloroform and ethyl acetate. Slightly soluble in ethanol. Insoluble in water.

Store Temp Ambient

Ship Temp Ambient

Description Aniracetam is a nootropic ampakine that exhibits anxiolytic and neuroprotective activities. Aniracetam acts as a positive allosteric modulator of AMPA receptors, slowing receptor deactivation; it also acts on D2 receptors, 5-HT_{2A} receptors, and nicotinic acetylcholine receptors (nAChRs), likely displaying agonist activity. Aniracetam decreases anxiety in vivo in the condition fear stress test, elevated plus maze test, and in social interaction tests. Additionally, this compound inhibits H₂O₂-induced deficits in long-term potentiation and neuron viability. Aniracetam shows some clinical benefit in the enhancement of cognitive deficits associated with stroke and Alzheimer's disease.



Bulk quantities available upon request

Product ID	Size
A5326	25 mg
A5326	100 mg
A5326	500 mg
A5326	1 g

References Wang YF, Li CC, Cai JX. Aniracetam attenuates H₂O₂-induced deficiency of neuron viability, mitochondria potential and hippocampal long-term potentiation of mice in vitro. *Neurosci Bull.* 2006 Sep;22(5):274-80. PMID: 17690727.

Jin R, Clark S, Weeks AM, et al. Mechanism of positive allosteric modulators acting on AMPA receptors. *J Neurosci.* 2005 Sep 28;25(39):9027-36. PMID: 16192394.

Nakamura K. Aniracetam: its novel therapeutic potential in cerebral dysfunctional disorders based on recent pharmacological discoveries. *CNS Drug Rev.* 2002 Spring;8(1):70-89. PMID: 12070527.

Nakamura K, Kurasawa M. Anxiolytic effects of aniracetam in three different mouse models of anxiety and the underlying mechanism. *Eur J Pharmacol.* 2001 May 18;420(1):33-43. PMID: 11412837.

Ito I, Tanabe S, Kohda A, et al. Allosteric potentiation of quisqualate receptors by a nootropic drug aniracetam. *J Physiol.* 1990 May;424:533-43. PMID: 1975272.

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