



LKT Laboratories, Inc.

Nefiracetam

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Product Information

Product ID N1721

CAS No. 77191-36-7

Chemical Name N-(2,6-dimethylphenyl)-2-(2-oxopyrrolidin-1-yl)acetamide

Synonym DM-9384

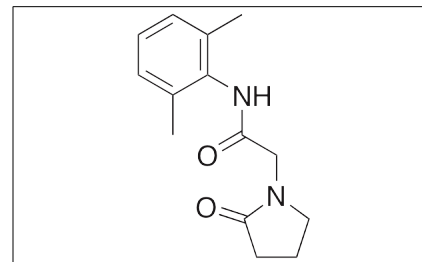
Formula C₁₄H₁₈N₂O₂

Formula Wt. 246.3

Melting Point 151-155°C

Purity ≥98%

Solubility



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
N1721	100 mg	\$120.50
N1721	250 mg	\$241.40
N1721	1 g	\$737.90

Store Temp Ambient

Ship Temp Ambient

Description Nefiracetam is pyrrolidone derivative that acts as an agonist at NMDA receptors, metabotropic glutamate receptors (mGluR5), and N-type and L-type voltage-gated Ca²⁺ channels. Nefiracetam also potentiates acetylcholine (ACh) currents via activity at α4β2 nicotinic acetylcholine receptors (nAChRs). Nefiracetam exhibits antiepileptic/anticonvulsant, neuroprotective, and cognition enhancing (nootropic) activities. In vivo, nefiracetam decreases seizure frequency and duration and also protects against neuronal death in animal models of post-ischemic seizure. In other animal models, this compound restored LTP, improved spatial memory, and improved object recognition in several behavioral assays, likely through glutamate-dependent modulation of PKC and CaMKII signaling.

References Lu XC, Dave JR, Chen Z, et al. Nefiracetam attenuates post-ischemic nonconvulsive seizures in rats and protects neuronal cell death induced by veratridine and glutamate. *Life Sci.* 2013 Jun 13;92(22):1055-63. PMID: 23603142.

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Narahashi T, Moriguchi S, Zhao X, et al. Mechanisms of action of cognitive enhancers on neuroreceptors. *Biol Pharm Bull.* 2004 Nov;27(11):1701-6. PMID: 15516710.

Yoshii M, Watabe S, Murashima YL, et al. Cellular mechanism of action of cognitive enhancers: effects of nefiracetam on neuronal Ca²⁺ channels. *Alzheimer Dis Assoc Disord.* 2000;14 Suppl 1:S95-102. PMID: 10850736.

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