



LKT Laboratories, Inc.

Levetiracetam

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Product Information

Product ID L1784

CAS No. 102767-28-2

Chemical Name 2(S)-(2-oxopyrrolidin-1-yl)butyramide

Synonym

Formula $C_8H_{14}N_2O_2$

Formula Wt. 170.21

Melting Point 117°C

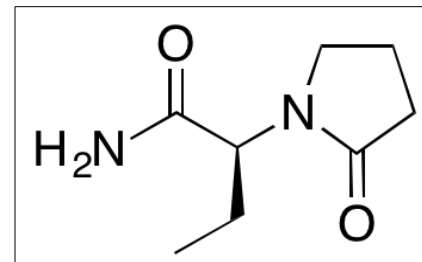
Purity ≥98%

Solubility Soluble in DMSO, water, and ethanol, all to 34mg/mL

Store Temp Ambient

Ship Temp Ambient

Description Levetiracetam is clinically used to treat a wide variety of seizure disorders, including partial, myoclonic, and tonic-clonic seizures as well as mood and psychiatric disorders such as anxiety, autism, and Tourette's syndrome. Levetiracetam displays anticonvulsant/antiepileptic, neuromodulatory, anxiolytic, and cognition enhancing activities. Levetiracetam binds to synaptic vesicle glycoprotein SV2A, a membrane glycoprotein common to all synaptic and endocrine vesicles. SV2A plays a role in Ca^{2+} -induced vesicle fusion, action potential proliferation, normal CNS function, and survival. Altering SV2A function inhibits presynaptic Ca^{2+} release, reduces excitatory postsynaptic potentials, and inhibits synaptic transmission. This compound is also under examination as a potential treatment for Alzheimer's disease, as it reduces memory and learning deficits, synaptic dysfunction, and hippocampal remodeling in a transgenic murine model of the disease.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
L1784	100 mg	\$72.30
L1784	250 mg	\$134.40
L1784	1 g	\$372.20

References Vogl C, Mochida S, Wolff C, et al. The synaptic vesicle glycoprotein 2A ligand levetiracetam inhibits presynaptic Ca^{2+} channels through an intracellular pathway. *Mol Pharmacol.* 2012 Aug;82(2):199-208. PMID: 22554805.

Sanchez PE, Zhu L, Verret L, et al. Levetiracetam suppresses neuronal network dysfunction and reverses synaptic and cognitive deficits in an Alzheimer's disease model. *Proc Natl Acad Sci U S A.* 2012 Oct 16;109(42):E2895-903. PMID: 22869752.

Farooq MU, Bhatt A, Majid A, et al. Levetiracetam for managing neurologic and psychiatric disorders. *Am J Health Syst Pharm.* 2009 Mar 15;66(6):541-61. PMID: 19265183.

Lynch BA, Lambeng N, Nocka K, et al. The synaptic vesicle protein SV2A is the binding site for the antiepileptic drug levetiracetam. *Proc Natl Acad Sci U S A.* 2004 Jun 29;101(26):9861-6. PMID: 15210974.

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