



LKT Laboratories, Inc.

Olanzapine

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Product Information

Product ID O4400

CAS No. 132539-06-1

Chemical Name 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]benzodiazepine

Synonym

Formula C₁₇H₂₀N₄S

Formula Wt. 312.43

Melting Point

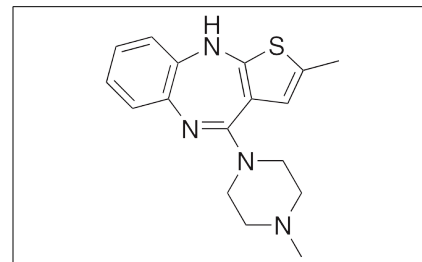
Purity ≥98%

Solubility 1mg/ml in ethanol, 16mg/ml in DMSO, and 20 mg/ml in DMF, sparingly soluble in aqueous buffers

Store Temp Ambient

Ship Temp Ambient

Description Olanzapine is an atypical antipsychotic used to treat schizophrenia, bipolar disorder, panic disorder, anxiety, and Tourette's syndrome. Olanzapine acts as an antagonist or inverse agonist at D1-4 receptors, 5-HT_{1A/2/3/6/7} receptors, muscarinic acetylcholine receptors (M1-5 mAChRs), α_{1/2}-adrenergic receptors, and histamine receptors. This compound also activates AMPK in the hypothalamus, increasing blood glucose levels. Olanzapine exhibits neuroprotective activity, upregulating BDNF gene transcription and modulating PGE₂ and arachidonic acid levels during chronic use.



Bulk quantities available upon request

Product ID	Size
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O4400	100 mg
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O4400	250 mg
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O4400	1 g
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References Ikegami M, Ikeda H, Ishikawa Y, et al. Olanzapine induces glucose intolerance through the activation of AMPK in the mouse hypothalamus. *Eur J Pharmacol.* 2013 Aug 22. [Epub ahead of print]. PMID: 23973646.

Cheon Y, Park JY, Modi HR, et al. Chronic olanzapine treatment decreases arachidonic acid turnover and prostaglandin E₂ concentration in rat brain. *J Neurochem.* 2011 Oct;119(2):364-76. PMID: 21812779.

Lee JG, Cho HY, Park SW, et al. Effects of olanzapine on brain-derived neurotrophic factor gene promoter activity in SH-SY5Y neuroblastoma cells. *Prog Neuropsychopharmacol Biol Psychiatry.* 2010 Aug 16;34(6):1001-6. PMID: 20546816.

Sepede G, De Berardis D, Gambi F, et al. Olanzapine augmentation in treatment-resistant panic disorder: a 12-week, fixed-dose, open-label trial. *J Clin Psychopharmacol.* 2006 Feb;26(1):45-9. PMID: 16475705.

Bymaster FP, Calligaro DO, Falcone JF, et al. Radioreceptor binding profile of the atypical antipsychotic olanzapine. *Neuropsychopharmacology.* 1996 Feb;14(2):87-96. PMID: 8822531.

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