



LKT Laboratories, Inc.

Lacidipine

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## Product Information

Product ID L0108

CAS No. 103890-78-4

Chemical Name

Synonym

Formula  $C_{26}H_{33}NO_6$

Formula Wt. 455.55

Melting Point

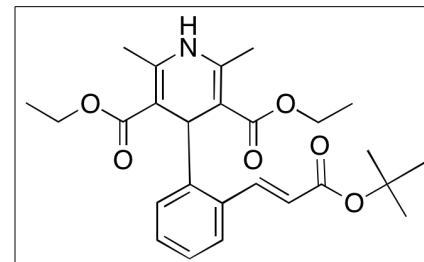
Purity  $\geq 98\%$

Solubility DMSO 91 mg/mL; Water <1 mg/mL

Store Temp 4° C

Ship Temp Ambient

**Description** Lacidipine is a third-generation dihydropyridine calcium channel blocker that has a demonstrated effectiveness against hypertension. It has been shown to have a preventative effect on myocardial hypertrophy and remodeling in male spontaneously hypertensive rats. In patient-derived Gaucher's disease fibroblasts, lacidipine has been found to enhance folding, trafficking, and activity of mutated glucocerebrosidase variants. It has been observed to function as a proteostasis regulator and to rescue L444P GC folding with considerably high efficiency by upregulating BiP expression. In addition to blocking L-type  $Ca^{2+}$  channels on the plasma membrane, it has been found to block Ryanodine receptors on the endoplasmic reticulum membrane. It has been shown to activate each of the three arms of the unfolded protein response signal transduction cascade and yet to prevent apoptosis induction, thereby promoting cell survival. Furthermore, lacidipine has been shown to possess antibacterial activity against various organisms, including *Vibrio cholerae* 569B cells in experimental rabbit ileal loops.



**Bulk quantities available upon request**

Product ID	Size
L0108	10 mg
L0108	50 mg

**References** Ge Y, Li G, Liu B, et al. The Protective Effect of Lacidipine on myocardial Remodeling Is Mediated by the Suppression in Expression of GPR78 and CHOP in Rats. *Evid Based Complement Alternat Med.* 2015; 2015: 945076. PMID: 25688281.

Wang F, Chou A, Segatori L. Lacidipine Remodels Protein Folding and  $Ca^{2+}$  Homeostasis in Gaucher's Disease Fibroblasts: A Mechanism to Rescue Mutant Glucocerebrosidase. *Chem Biol.* 2011 Jun 24; 18(6):766-76. PMID: 21700212.

Wang F, Segatori L. Remodeling the Proteostasis Network to Rescue Glucocerebrosidase Variants by Inhibiting ER-Associated Degradation and Enhancing ER Folding. *PLoS One.* 2013 Apr 19; 8(4):e61418. PMID: 23620750.

Dasgupta A, Dastidar S. Antibacterial & antitoxic effects of the cardiovascular drug lacidipine in an animal model. *Indian J Med Res.* 2012 Jun; 135(6): 913-916. PMID: 22825612.

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