LKT Laboratories, Inc.

Cilnidipine

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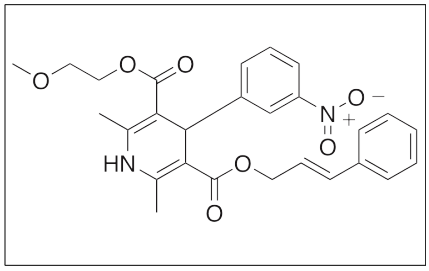
Product Information

Product ID C3446
CAS No. 132203-70-4
Chemical Name

Synonym

Formula $C_{27}H_{28}N_2O_7$
Formula Wt. 492.52
Melting Point 97-99°C
Purity ≥98%
Solubility



Bulk quanitites available upon request

Product ID	Size
C3446	100 mg
C3446	250 mg
C3446	1 g

Store Temp Ambient
Ship Temp Ambient

Description Cilnidipine is a dihydropyridine that exhibits antihypertensive, vasodilatory, antinociceptive, and nephroprotective activities. Cilnidipine acts as an antagonist at L-type and N-type voltage-gated Ca2+ channels. In subjects with hypertension, cilnidipine decreases blood pressure and urinary albumin excretion. Cilnidipine also increases expression of eNOS ex vivo in thoracic arteries. In animal models of non insulin-dependent diabetes, cilnidipine improves insulin sensitivity, indicating potential anti-diabetic activity as well. This compound inhibits nociception in animal models undergoing the formalin test. Additionally, in vitro, cilnidipine decreases production of AP-1, TGF-ß, and fibronectin, inhibiting proliferation of mesangial cells; in similar animal models, cilnidipine inhibits progression of glomerulonephritis.

References

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Koganei H, Shoji M, Iwata S. Suppression of formalin-induced nociception by cilnidipine, a voltage-dependent calcium channel blocker. Biol Pharm Bull. 2009 Oct;32(10):1695-700. PMID: 19801830.

Sugiura T, Imai E, Moriyama T, et al. Calcium channel blockers inhibit proliferation and matrix production in rat mesangial cells: possible mechanism of suppression of AP-1 and CREB activities. Nephron. 2000 May;85(1):71-80. PMID: 10773759.

Harada N, Ohnaka M, Sakamoto S, et al. Cilnidipine improves insulin sensitivity in the Otsuka Long-Evans Tokushima fatty rat, a model of spontaneous NIDDM. Cardiovasc Drugs Ther. 1999 Nov;13(6):519-23. PMID: 10686661.

Fan YY, Kohno M, Nakano D, et al. Cilnidipine suppresses podocyte injury and proteinuria in metabolic syndrome rats: possible involvement of N-type calcium channel in podocyte. J Hypertens. 2010 May;28(5):1034-1043. PMID: 20411599.

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