# Data Sheet

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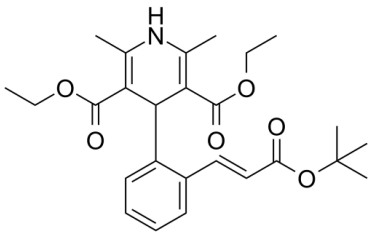
| **Product Name:** | Lacidipine |
| **Cat. No.:** | CS-2391 |
| **CAS No.:** | 103890-78-4 |
| **Molecular Formula:** | C26H33NO6 |
| **Molecular Weight:** | 455.54 |
| **Target:** | Apoptosis; Calcium Channel; Reactive Oxygen Species |
| **Pathway:** | Apoptosis; Immunology/Inflammation; Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease; Neuronal Signaling; NF-κB |
| **Solubility:** | H2O : < 0.1 mg/mL (insoluble); DMSO : ≥ 50 mg/mL (109.76 mM) |



## BIOLOGICAL ACTIVITY:

Lacidipine (Lacipil, Motens) is a L-type calcium channel blocker. Target: Calcium Channel Lacidipine, a novel third-generation dihydropyridine calcium channel blocker, has been demonstrated effective for hypertension. lacidipine protects HKCs against apoptosis induced by ATP depletion and recovery by regulating the caspase-3 pathway [1]. In biological membranes deriving from rat brain tissue, lacidipine showed an activity comparable to reference antioxidant compounds like vitamin E [2]. lacidipine has some important protective effects on liver of hypertensive irradiated albino rats [3].

## References:

[1]. Zhang, A., et al., Lacidipine attenuates apoptosis via a caspase-3 dependent pathway in human kidney cells. Cell Physiol Biochem, 2013. 32(4): p. 1040-9.

[2]. van Amsterdam, F.T., et al., Lacidipine: a dihydropyridine calcium antagonist with antioxidant activity. Free Radic Biol Med, 1992. 12(3): p. 183-7.

[3]. Kamal, S.M., Possible hepatoprotective effects of lacidipine in irradiated DOCA-salt hypertensive albino rats. Pak J Biol Sci, 2013. 16(21): p. 1353-7.

## CAIndexNames:

3,5-Pyridinedicarboxylic acid, 4-[2-[(1E)-3-(1,1-dimethylethoxy)-3-oxo-1-propen-1-yl]phenyl]-1,4-dihydro-2,6-dimethyl-, 3,5-diethyl ester

## SMILES:

O=C(C1=C(C)NC(C)=C(C(OCC)=O)C1C2=CC=CC=C2/C=C/C(OC(C)(C)C)=O)OCC

**Caution: Product has not been fully validated for medical applications. For research use only.**

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