

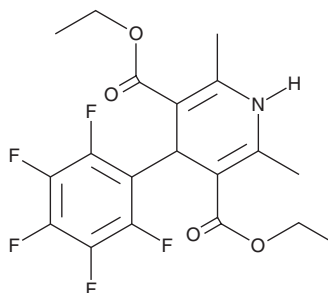
# PRODUCT INFORMATION



## Nemadipine A

Item No. 21689

CAS Registry No.: 54280-71-6  
Formal Name: 1,4-dihydro-2,6-dimethyl-4-(2,3,4,5,6-pentafluorophenyl)-3,5-pyridinedicarboxylic acid, 3,5-diethyl ester  
MF:  $C_{19}H_{18}F_5NO_4$   
FW: 419.3  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{max}$ : 231, 365 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Nemadipine A is supplied as a crystalline solid. A stock solution may be made by dissolving the nemadipine A in the solvent of choice, which should be purged with an inert gas. Nemadipine A is soluble in organic solvents such as ethanol, methanol, and DMSO. The solubility of nemadipine A in these solvents is approximately 15, 100, and 20 mg/ml, respectively.

### Description

Nemadipine A is an L-type calcium channel blocker that induces morphological and growth defects in wild-type *C. elegans* and those with hypoeexpression of *egl-19*, which encodes the only L-type calcium channel  $\alpha_1$ -subunit in the *C. elegans* genome.<sup>1</sup> It also inhibits L-type calcium channels in chick ciliary neurons. Nemadipine A increases TRAIL-induced cytotoxicity and synergistically enhances caspase-8 and caspase-3 activation in a concentration-dependent manner in H1299 lung adenocarcinoma cells.<sup>2</sup> It also decreases Survivin expression when used alone or in combination with TRAIL in A549 cells.

### References

1. Kwok, T.C., Ricker, N., Fraser, R., *et al.* A small-molecule screen in *C. elegans* yields a new calcium channel antagonist. *Nature* **441**(7089), 91-95 (2006).
2. Park, S.H., Park, S.J., Kim, J.-O., *et al.* Down-regulation of survivin by nemadipine-A sensitizes cancer cells to TRAIL-induced apoptosis. *Biomol. Ther. (Seoul)* **21**(1), 29-34 (2013).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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