

## Product Data Sheet

Product Name: Flunarizine

Cat. No.: GF11514

### Chemical Properties

Cas. No. 52468-60-7

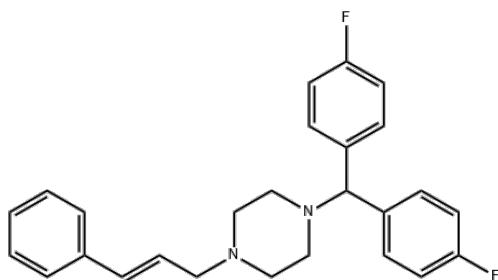
Formula C<sub>26</sub>H<sub>26</sub>F<sub>2</sub>N<sub>2</sub> M.Wt 404.49

Solubility DMSO : 100 mg/mL (247.22 mM; Storage 2-8°C  
Need ultrasonic)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



### Background

Flunarizine is a potent dual Na<sup>+</sup>/Ca<sup>2+</sup> channel (T-type) blocker. Flunarizine is a D<sub>2</sub> dopamine receptor antagonist. Flunarizine shows anticonvulsive and antimigraine activity, and peripheral vasodilator effects.

Flunarizine blocks sodium currents (I<sub>Na</sub>) and calcium currents (I<sub>Ca</sub>) with IC<sub>50</sub> values of 0.94 μM and 1.77 μM in cultured rat cortical neurons, respectively<sup>[2]</sup>.

Flunarizine (10 and 30 μM; 24 h) shows cytotoxic effects to chromaffin cells<sup>[4]</sup>.

Flunarizine (1-30 μM) causes clear cytoprotection of chromaffin cell at concentrations of 3-10 μM<sup>[4]</sup>.

Flunarizine (intraperitoneal injection; 30 mg/kg; once) protects mice from lipopolysaccharide- (LPS-

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

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) induced acute lung injury (ALI)<sup>[5]</sup>.

[1]. Hong-Seob So, et al. Protective effect of T-type calcium channel blocker flunarizine on cisplatin-induced death of auditory cells. *Hear Res.* 2005 Jun;204(1-2):127-39.

[2]. Qing Ye, et al. Flunarizine blocks voltage-gated Na(+) and Ca(2+) currents in cultured rat cortical neurons: A possible locus of action in the prevention of migraine. *Neurosci Lett.* 2011 Jan 10;487(3):394-9.

[3]. Celia M Santi, et al. Differential inhibition of T-type calcium channels by neuroleptics. *J Neurosci.* 2002 Jan 15;22(2):396-403.

[4]. Novalbos J, et al. Effects of dotarizine and flunarizine on chromaffin cell viability and cytosolic Ca<sup>2+</sup>. *Eur J Pharmacol.* 1999 Feb 5;366(2-3):309-17.

[5]. Wan L, et al. Mibefradil and Flunarizine, Two T-Type Calcium Channel Inhibitors, Protect Mice against Lipopolysaccharide-Induced Acute Lung Injury. *Mediators Inflamm.* 2020 Nov 10;2020:3691701.

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