

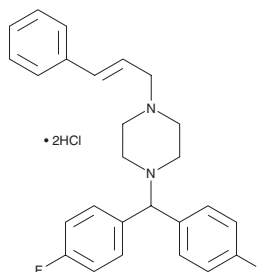
PRODUCT INFORMATION



Flunarizine (hydrochloride)

Item No. 20385

CAS Registry No.: 30484-77-6
Formal Name: 1-[bis(4-fluorophenyl)methyl]-4-[(2E)-3-phenyl-2-propen-1-yl]-piperazine, dihydrochloride
MF: C₂₆H₂₆F₂N₂ • 2HCl
FW: 477.4
Purity: ≥98%
UV/Vis.: λ_{max}: 254 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

Flunarizine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the flunarizine (hydrochloride) in the solvent of choice. Flunarizine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of flunarizine (hydrochloride) in these solvents is approximately 1 mg/ml.

Flunarizine (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, flunarizine (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Flunarizine (hydrochloride) has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Flunarizine is a calcium antagonist that acts as a potent dilator of peripheral vessels without having calcium-blocking actions in the heart.¹ It reduces calcium fluxes in vascular smooth muscle by blocking both voltage-dependent calcium channels and receptor-operated channels.² Flunarizine also acts as a dopamine D₂ receptor antagonist.³ Through its action as a dilator of peripheral vessels, flunarizine has a role in the prophylaxis of migraine headaches.^{4,5}

References

1. Singh, B.N. The mechanism of action of calcium antagonists relative to their clinical applications. *Br. J. Clin. Pharmacol.* **21**, 109S-121S (1986).
2. Bian, K. and Toda, N. Vasodilator actions of flunarizine in isolated dog cerebral and extracerebral arteries *Jpn. J. Pharmacol.* **49(1)**, 83-94 (1989).
3. Brücke, T., Wöber, C., Podreka, I., et al. D₂ receptor blockade by flunarizine and cinnarizine explains extrapyramidal side effects. A SPECT study. *J. Cereb. Blood Flow Metab.* **15(3)**, 513-518 (1995).
4. Limmroth, V. and Michel, M.C. The prevention of migraine: A critical review with special emphasis on β-adrenoceptor blockers. *Br. J. Clin. Pharmacol.* **52(3)**, 237-243 (2001).
5. Pringsheim, T., Davenport, W.J. and Becker, W.J. Prophylaxis of migraine headache. *CMAJ* **182(7)** (2010).

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.

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