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:** C_{26}H_{26}F_{2}N_{2} • 2HCl

**FW:** 477.4

**Purity:** ≥98%

**UV/Vis.:** \( \lambda_{\text{max}} \): 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.

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**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.

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**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 D\(_2\) receptor antagonist.\(^3\) Through its action as a dilator of peripheral vessels, flunarizine has a role in the prophylaxis of migraine headaches.\(^4,5\)

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**References**