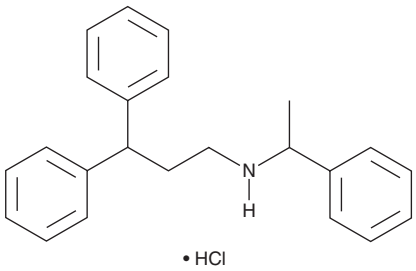
PRODUCT INFORMATION

Fendiline (hydrochloride)

Item No. 17295

CAS Registry No.:	13636-18-5
Formal Name:	γ-phenyl-N-(1-phenylethyl)-benzenepropanamine, monohydrochloride
MF:	$C_{23}H_{25}N \bullet HCl$
FW:	351.9
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Fendiline (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the fendiline (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Fendiline (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of fendiline (hydrochloride) in these solvents is approximately 15, 30, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of fendiline (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of fendiline (hydrochloride) in PBS (pH 7.2) is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Fendiline is an α2-adrenergic receptor antagonist (K_d = 2.6 µM) and an L-type calcium channel blocker (IC_{50} = 17 µM) well-known for its coronary vasodilator effects.[1-4] Fendiline has recently been reported to inhibit K-Ras plasma membrane localization (IC_{50} = 9.64 µM), which prevents K-Ras signal transduction and blocks the proliferation of K-Ras-transformed tumor cells.[5]

References

1. Motulsky, H.J., Snavely, M.D., Hughes, R.J., *et al.* Interaction of verapamil and other calcium channel blockers with α1- and α2-adrenergic receptors. *Circ. Res.* **52(2)**, 226-231 (1983).
2. Nawrath, H., Klein, G., Rupp, J., *et al.* Open state block by fendiline of L-type Ca++ channels in ventricular myocytes from rat heart. *J. Pharmacol. Exp. Ther.* **285(2)**, 546-552 (1998).
3. Tripathi, O., Schreibayer, W., and Tritthart, H.A. Fendiline inhibits L-type calcium channels in guinea-pig ventricular myocytes: A whole-cell patch-clamp study. *Br. J. Pharmacol.* **108(4)**, 865-869 (1993).
4. Csik, V., Szekeres, L., and Udvary, E. Comparison of two calcium antagonists, verapamil and fendiline, in an experimental model of myocardial ischaemia mimicking classical angina on effort. *Br. J. Pharmacol.* **79(1)**, 37-43 (1983).
5. van der Hoven, D., Cho, K.J., Ma, X., *et al.* Fendiline inhibits K-Ras plasma membrane localization and blocks K-Ras signal transmission. *Mol. Cell. Biol.* **33(2)**, 237-251 (2013).

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