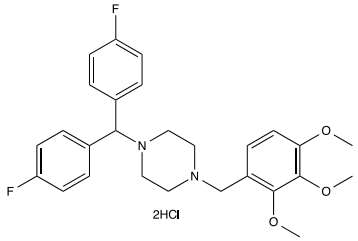
# Catalog # 10-4336
# Lomerizine

CAS# 101477-54-7

1-[Bis(4-fluorophenyl)methyl]-4-(2,3,4-trimethoxybenzyl)piperazine dihydrochloride; KB-2796

Lot # FBA4107




Lomerizine is a clinically useful calcium channel blocker (L and T-type). It is used for the treatment of migraine headaches, however its antimigraine effects are believed to be due to its 5HT2A antagonistic effects.[1] Lomerizine also displays anti-glaucoma effects via an increase in ocular circulation and protection of neuronal cells against retinal neurotoxicity with minimal cardiovascular effects.[2] Lomerizine has also shown various other neuroprotective properties.[3,4,5,6]


1) Ishii *et al*. (2009), Inhibitory effect of lomerizine, a prophylactic drug for migraines, on serotonin-induced contraction of the basilar artery; J.Pharmacol.Sci. **111** 221
2) Hara *et al*. (2004), *Clinical potential of lomerizine, a Ca2+ channel blocker as an anti-glaucoma drug: effects on ocular circulation and retinal neuronal damage*; Cardiovasc.Drug Rev. **22** 199
3) Ishii *et al.* (2011), *Neuroprotection by lomerizine, a prophylactic drug for migraine, against hydrogen peroxide-induced hippocampal neurotoxicity*; Mol.Cell Biochem. **358** 1
4) Savigni *et al.* (2013), *Three Ca2+ channel inhibitors in combination limit chronic secondary degeneration following neurotrauma*; Neuropharmacology **75** 380
5) Tran *et al*. (2014), *The voltage-gated calcium channel blocker lomerizine is neuroprotective in motor neurons expressing mutant SOD, but not TDP-43*; J.Neurochem. **130** 455
6) O'Hare *et al*. (2016), *Specific combinations of ion channel inhibitors reduce excessive Ca2+ influx as a consequence of oxidative stress and increase neuronal and glial cell viability in vitro*; Neuroscience **339** 450


## PHYSICAL DATA

| | |
|---|---|
| Molecular Weight: | 541.46 |
| Molecular Formula: | $C_{27}H_{30}F_2N_2O_3 \cdot 2HCl$ |
| Purity: | >98% by TLC |
| | NMR: (Conforms) |
| Solubility: | DMSO (>45 mg/ml) and Ethanol (30 mg/mL) |
| Physical Description: | White solid |
| Storage and Stability: | Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months. |

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