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 \textit{et al.} (2009), Inhibitory effect of lomerizine, a prophylactic drug for migraines, on serotonin-induced contraction of the basilar artery; J.Pharmacol.Sci. \textbf{111} 221

2) Hara \textit{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. \textbf{22} 199

3) Ishii \textit{et al.} (2011), Neuroprotection by lomerizine, a prophylactic drug for migraine, against hydrogen peroxide-induced hippocampal neurotoxicity; Mol.Cell Biochem. \textbf{358} 1

4) Savigni \textit{et al.} (2013), Three Ca2+ channel inhibitors in combination limit chronic secondary degeneration following neurotrauma; Neuropsycharmacology \textbf{75} 380

5) Tran \textit{et al.} (2014), The voltage-gated calcium channel blocker lomerizine is neuroprotective in motor neurons expressing mutant SOD, but not TDP-43; J.Neurochem. \textbf{130} 455

6) O’Hare \textit{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 \textbf{339} 450

**PHYSICAL DATA**

Molecular Weight: 541.46  
Molecular Formula: C\(_{27}\)H\(_{30}\)F\(_2\)N\(_2\)O\(_3\)·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.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.