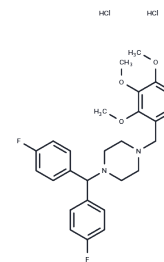


Lomerizine dihydrochloride

Chemical Properties

CAS No. :	101477-54-7
Formula:	C ₂₇ H ₃₀ F ₂ N ₂ O ₃ ·2HCl
Molecular Weight:	541.46
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Lomerizine dihydrochloride (KB-2796) is an antagonist of L- and T-type voltage-gated calcium channels used to treat migraine.
Targets(IC50)	Calcium Channel
In vitro	Treatment of rat retinal neurons cultured in vitro with 0.1 μM and 1 μM Lomerizine significantly reduced glutamate-induced neurotoxicity. 1 μM Lomerizine showed a protective effect against N-methyl-D-aspartic acid- and haemonucleic acid-induced types of neurotoxicity in cultured rat retinal neurons.
In vivo	Treatment of rat retinal neurons cultured in vitro with 0.1 μM and 1 μM Lomerizine significantly reduced glutamate-induced neurotoxicity. 1 μM Lomerizine showed a protective effect against N-methyl-D-aspartic acid- and haemonucleic acid-induced types of neurotoxicity in cultured rat retinal neurons.

Solubility Information

Solubility	DMSO: 15 mg/mL (27.7 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 49 mg/mL (90.5 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.69 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8469 mL	9.2343 mL	18.4686 mL
5 mM	0.3694 mL	1.8469 mL	3.6937 mL
10 mM	0.1847 mL	0.9234 mL	1.8469 mL
50 mM	0.0369 mL	0.1847 mL	0.3694 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Toriu N, et al. *Exp Eye Res*, 2000, 70(4), 475-484.

Fitzgerald M, et al. *Invest Ophthalmol Vis Sci*, 2009, 50(11), 5456-5462.

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Tamaki Y, et al. *Invest Ophthalmol Vis Sci*, 2003, 44(11), 4864-4871.

Toriu N, et al. *J Ocul Pharmacol Ther*, 2001, 17(2), 131-149.

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