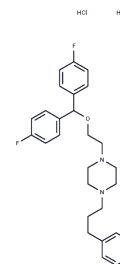


Vanoxerine dihydrochloride

Chemical Properties

CAS No. :	67469-78-7
Formula:	C ₂₈ H ₃₄ Cl ₂ F ₂ N ₂ O
Molecular Weight:	523.49
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Vanoxerine dihydrochloride (GBR-12909 dihydrochloride) is a potent inhibitor of dopamine uptake (IC ₅₀ : 1-51 nM).
Targets(IC ₅₀)	Dopamine Receptor
In vivo	In 9 SP dogs, 11 episodes each of sustained (>10 minutes) AF and AFL were induced. Electrophysiological studies were performed before and after infusion of vanoxerine, which effectively terminated AF and AFL in 19 of 22 episodes. Simultaneous multisite mapping during 3 AF and 3 AFL episodes demonstrated that termination of each arrhythmia occurred with termination of the driver (a reentrant circuit) following an increase in tachycardia CL. Except for conduction in an area of slow conduction in the driver's reentrant circuit, vanoxerine did not significantly affect intraatrial or atrioventricular conduction time, QRS duration, or QT/QTc intervals. Ventricular refractoriness prolonged minimally during ventricular pacing at 400 and 333 ms (176 +/- 16 ms to 182 +/- 16 ms; 173 +/- 11 ms to 178 +/- 18 ms, respectively). Vanoxerine minimally increased (mean 0.7 mA) atrial stimulus threshold for capture[1]. Vanoxerine dihydrochloride also blocks ligand binding to sigma receptors in rat brain (IC ₅₀ = 48 nM) [2].

Solubility Information

Solubility	DMSO: 9.4 mg/mL (17.96 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: 1 mg/mL (1.91 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	1.9103 mL	9.5513 mL	19.1026 mL
5 mM	0.3821 mL	1.9103 mL	3.8205 mL
10 mM	0.191 mL	0.9551 mL	1.9103 mL
50 mM	0.0382 mL	0.191 mL	0.3821 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

Vanoxerine, a New Drug for Terminating Atrial Fibrillation and Flutter[J]. J Cardiovasc Electrophysiol, 2010, 21(3): 311-319.

Contreras P C , Bremer M E , Rao T S . GBR-12909 and fluspirilene potently inhibited binding of [3H] (+)3-PPP to sigma receptors in rat brain[J]. Life Sciences, 1990, 47(22):PL133-7.

Rothman R B , Baumann M H , Priszczano T E , et al. Dopamine transport inhibitors based on GBR12909 and bntropine as potential medications to treat cocaine addiction[J]. Biochemical Pharmacology, 2008, 75(1):2-16.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481