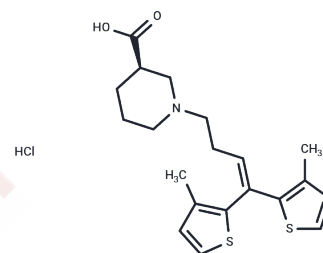


Tiagabine hydrochloride

Chemical Properties

CAS No. :	145821-59-6
Formula:	C ₂₀ H ₂₅ NO ₂ S ₂ ·HCl
Molecular Weight:	412.01
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	Tiagabine hydrochloride (NO050328 hydrochloride) is the hydrochloride salt form of tiagabine, a nipecotic acid derivative with anticonvulsant property. A selective gamma-aminobutyric acid (GABA) reuptake inhibitor.
Targets(IC50)	GABA Receptor, Trk receptor
In vitro	Tiagabine is a potent inhibitor of GABA uptake into neurons and glial cells. It is involved in modulating GABA levels, especially in areas such as the hippocampus and thalamus [2]. Tiagabine not only affected the decay kinetics of the IPSCs, it also reduced the frequency of occurrence of both spontaneous and miniature IPSCs[4].
In vivo	Tiagabine offers a significant neuroprotection in global ischemia in gerbils when given 30 min before ischemia but not when given 3 h after ischemia[3].

Solubility Information

Solubility	DMSO: 41.2 mg/mL (100 mM), Sonication is recommended. H ₂ O: 20.6 mg/mL (50 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 (4.85 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	2.4271 mL	12.1356 mL	24.2713 mL
5 mM	0.4854 mL	2.4271 mL	4.8543 mL
10 mM	0.2427 mL	1.2136 mL	2.4271 mL
50 mM	0.0485 mL	0.2427 mL	0.4854 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

- Hu RQ, et al. Brain Res. 1997, 753(2):260-8.
- Angehagen M, et al. Neurochem Res. 2003, 28(2):333-40.
- Iqbal S, et al. Brain Res. 2002, 946(2):162-70.
- Chen L, et al. Exp Brain Res. 2003, 152(2):263-9.

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