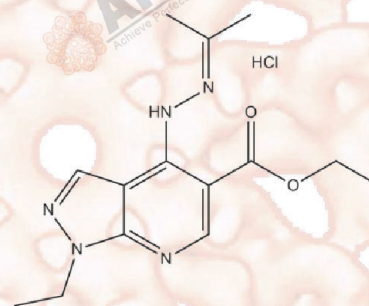


Product Data Sheet

Etazolate hydrochloride

Cat. No.:	B6304
CAS No.:	35838-58-5
Formula:	C ₁₄ H ₁₉ N ₅ O ₂ ·HCl
M.Wt:	325.8
Synonyms:	
Target:	Metabolism
Pathway:	PDE
Storage:	Store at RT



Solvent & Solubility

≥7.75 mg/mL in DMSO; ≥9.94 mg/mL in EtOH; insoluble in H₂O

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	3.0694 mL	15.3468 mL	30.6937 mL
		5 mM	0.6139 mL	3.0694 mL	6.1387 mL
		10 mM	0.3069 mL	1.5347 mL	3.0694 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	PDE-4 inhibitor and selective GABA-A receptor modulator	
IC ₅₀ & Target		
In Vitro	Cell Viability Assay	
	Cell Line:	Neuronal cortical cells from Wistar rat embryos
	Preparation method:	The solubility of this compound in sterile water is 50 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
	Reacting conditions:	48 h, 0~2 μM

	Applications:	In cortical neurons, 0~2 μM etazolate hydrochloride dose-dependently increased secreted levels of non-amyloidogenic sAPP α . etazolate hydrochloride (0.2 μM) prevented the neurotoxicity of A β on cortical neurons via the GABA-A receptor, which was associated with α -secretase activity and sAPP α induction. Etazolate hydrochloride induced sAPP α through the stimulation of the α -secretase pathway, and didn't affect the amyloidogenic pathway.
In Vivo	Animal experiment	
	Dosage form:	40 and 80 mg bid for 3 month, oral administration
	Applications:	Etazolate hydrochloride in combination with one AChEI (acetylcholinesterase inhibitor) was shown to be safe and generally well tolerated in this Phase IIA study in 159 Alzheimer's Disease patients over a 3-month treatment period. Most of psychiatric and neurologic AEs (Adverse events) were observed in the high-dose (etazolate 80 mg bid) group, suggesting a potential dose-related effect. Gastrointestinal and cardiovascular related AEs were no more frequent in the etazolate groups compared to placebo, indicating the absence of a potential clinical adverse interaction between the AChEI and etazolate hydrochloride.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.	

Product Citations

1. Alzoubi KH, Al Subeh ZY, et al. "Molecular targets for the interactive effect of etazolate during post-traumatic stress disorder: Role of oxidative stress, BDNF and histones." Behav Brain Res. 2019 Sep 2;369:111930.PMID:31047921
2. Alzoubi KH, Mokhmer E, et al. "Beneficial effect of etazolate on depression-like behavior and, learning, and memory impairment in a model of Parkinson's disease." Behav Brain Res. 2018 Sep 17;350:109-115.PMID:29758248
3. Alzoubi KH, Al Subeh ZY, et al. "Evaluating the protective effect of etazolate on memory impairment, anxiety- and depression-like behaviors induced by post traumatic stress disorder." Brain Res Bull. 2017 Oct;135:185-192.PMID:29107895

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References

- [1] Marcade M, Bourdin J, Loiseau N, et al. Etazolate, a neuroprotective drug linking GABA(A) receptor pharmacology to amyloid precursor protein processing.[J]. Journal of Neurochemistry, 2008, 106(1):392-404.
- [2] Vellas B; Sol O; Snyder PJ; Ousset PJ; Haddad R; Maurin M; Lemarié JC; Désiré L; Pando MP; EHT0202/002 study group. EHT0202 in Alzheimer's disease: a 3-month, randomized, placebo-controlled, double-blind study.[J]. Current Alzheimer Research, 2011, 8(2):203-12.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX^xBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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