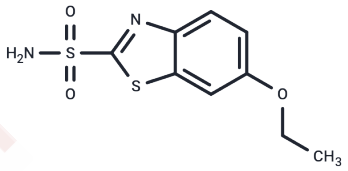
Data Sheet (Cat.No.T5012)

TargetMol

Ethoxzolamide

Chemical Properties



CAS No. : 452-35-7

Formula: C9H10N2O3S2

Molecular Weight: 258.32

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	Ethoxzolamide (L-643786) is a carbonic anhydrase inhibitor.
Targets(IC50)	Antibacterial,Carbonic Anhydrase
In vitro	Ethoxzolamide (ETZ) treatment leads to a greater than 90% reduction in reporter GFP fluorescence in infected macrophages and markedly impairs the intracellular growth of M. tuberculosis, as demonstrated in a 9-day macrophage survival assay.

Solubility Information

Solubility	DMSO: 250 mg/mL (967.79 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (15.48 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8712 mL	19.3558 mL	38.7117 mL
5 mM	0.7742 mL	3.8712 mL	7.7423 mL
10 mM	0.3871 mL	1.9356 mL	3.8712 mL
50 mM	0.0774 mL	0.3871 mL	0.7742 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

Benjamin K. Johnson, et al. The Carbonic Anhydrase Inhibitor Ethoxzolamide Inhibits theMycobacterium tuberculosis PhoPR Regulon and Esx-1 Secretion and Attenuates Virulence. Antimicrob Agents Chemother. 2015 Aug; 59(8): 4436-4445.

Li Y, Shen G, Du J, et al.Neuroprotective Potential of Ethoxzolamide Targeting Oxidative Stress and Inflammation in Experimental Models of Intracerebral Hemorrhage.Frontiers in Bioscience-Landmark.2024, 29(10): 356.

Song Gao, et al. Development and validation of an UPLC-MS/MS method for the quantification of ethoxzolamide in plasma and bioequivalent buffers: Applications to absorption, brain distribution, and pharmacokinetic studies. J Chromatogr B Analyt Technol Biomed Life Sci. 2015 Apr 1; 0: 54-59.

Maren TH, et al. Relations among IOP reduction, ocular disposition and pharmacology of the carbonic anhydrase inhibitor ethoxzolamide. Exp Eye Res. 1992 Jul;55(1):73-9.