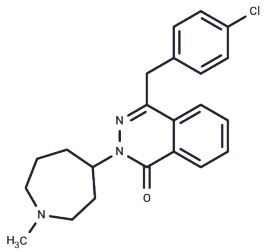
Data Sheet (Cat.No.T0211)

TargetMol

Azelastine

Chemical Properties



CAS No. : 58581-89-8

Formula: C22H24ClN3O

Molecular Weight: 381.90

Storage: Keep away from direct sunlight
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	Azelastine (Azelastinum) is a phthalazine derivative, and is an histamine antagonist and mast cell stabilizer.
Targets(IC50)	Histamine Receptor,SARS-CoV
In vitro	Azelastine inhibits Ag- and ionomycin-induced TNF-alpha release with IC50 values of 25.7 mM and 1.66 mM, respectively, in a rat mast RBL-2H3 cell line. Azelastine also inhibits TNF-alpha mRNA expression, TNF-alpha protein synthesis and release, and, possibly related to these effects, Ca2+ influx, in Ag-stimulated cells. Azelastine inhibits TNF-alpha release to a greater extent than mRNA expression/protein synthesis and Ca2+ influx in ionomycin-stimulated cells, suggesting that Azelastine inhibits the release process more potently than transcription or production of TNF-alpha by interfering with a signal other than Ca2+. Azelastine added 1 hour after ionomycin stimulation also immediately blocks subsequent release of TNF-alpha, which has been produced in the cells, without affecting Ca2+ influx. Azelastine inhibits ionomycin-induced, but not Ag-induced, protein kinase C translocation to the membranes. [1] Azelastine hydrochloride (Azeptin) dose-dependently suppresses both DNA and protein synthesis in human gingival fibroblasts (HF) and also suppresses blastogenesis of human peripheral blood lymphocytes (PBL). Azelastine hydrochloride (Azeptin) suppresses both inducible nitric oxide synthase-mRNA level and NO generation in mouse peritoneal macrophages. [2] Azelastine inhibits secretion of IL-6, TNF-alpha and IL-8 as well as NF-kappaB activation and intracellular calcium ion levels in normal human mast cells. [3]

Solubility Information

Solubility	DMSO: 3.82 mg/mL (10 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6185 mL	13.0924 mL	26.1849 mL
5 mM	0.5237 mL	2.6185 mL	5.237 mL
10 mM	0.2618 mL	1.3092 mL	2.6185 mL
50 mM	0.0524 mL	0.2618 mL	0.5237 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

Hide I, et al. J Immunol,1997, 159(6), 2932-2940.
Yoneda K, et al. Jpn J Pharmacol,1997, 73(2), 145-153.
Kempuraj D, et al. Int Arch Allergy Immunol,2003, 132(3), 231-239.