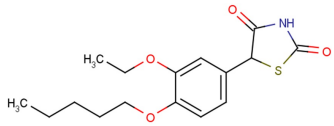
Data Sheet (Cat.No.T16756)

TargetMol
A DRUG SCREENING EXPERT

Risarestat

Chemical Properties



CAS No.:	79714-31-1
Formula:	C16H21NO4S
Molecular Weight:	323.41
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Risarestat is an aldose reductase inhibitor.
Targets(IC_{50})	Others: None
In vivo	Risarestat inhibits the accumulation of dulcitol in a dose-dependent manner, except for the 1.0% solution which has activity comparable to the 0.25% solution. The anterior surface area of superficial cells in the group treated with Risarestat is significantly decreased from a mean value of 881 to 728 microns2. Risarestat remains detectable in the lens up to 24 hours, with a peak concentration at 2 hours after installation. Risarestat peaks in the corneal epithelium, stroma, endothelium, and aqueous humor in 30 minutes following instillation, then gradually diminish time-dependently over a period of 24 hours. Animals treated with Risarestat display a significant increase in the mean blinkresponse compared to untreated galactose-fed rats and do not differ significantly from controls towards the completion of the 7-month study. Animals treated topically with Risarestat and untreated galactose-fed rats develop bilateral nuclear cataracts within 3 weeks [1][2][3][4].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.092 mL	15.46 mL	30.921 mL
5 mM	0.618 mL	3.092 mL	6.184 mL
10 mM	0.309 mL	1.546 mL	3.092 mL
50 mM	0.062 mL	0.309 mL	0.618 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Awata T, et al. Effect of an aldose reductase inhibitor, CT-112, on healing of the corneal epithelium in galactose-fed rats. J Ocul Pharmacol. 1988 Fall;4(3):195-201.

2. Ohashi Y, et al. Intraocular penetration of CT-112, an aldose reductase inhibitor, following topical instillation. J Ocul Pharmacol. 1989 Winter;5(4):325-8.

3. Hosotani H, et al. Reversal of abnormal corneal epithelial cell morphologic characteristics and reduced corneal sensitivity in diabetic patients by aldose reductase inhibitor, CT-112. Am J Ophthalmol. 1995 Mar;119(3):288-94.

4. Jacot JL, et al. Diabetic-like corneal sensitivity loss in galactose-fed rats ameliorated with aldose reductase inhibitors. J Ocul Pharmacol Ther. 1998 Apr;14(2):169-80.

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