Data Sheet (Cat.No.T17114)



Tolrestat

Chemical Properties

CAS No.: 82964-04-3

Formula: C16H14F3NO3S

Molecular Weight: 357.35

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Tolrestat (AY-27773) is a potent inhibitor of aldose reductase (IC50 = 35 nM).
Targets(IC50)	Reductase
In vivo	The estimated ID in the sciatic nerve and lenses is 4.8 and about 20 for tolrestat, and 1.7 and 2.2 for (±)sorbinil, respectively in diabetic rats[1]. Tolrestat inhibits tissue AR activity but does not significantly affect plasma lipoprotein levels, or affect the body weight of the mice or their general health. Accumulation of cholesterol-rich foam cells is significantly increased in aortic roots of tolrestat-fed mice[2]. Tolrestat (1.8 mg/kg) causes a reversal of normal RBC sorbitol levels[3].

Solubility Information

Solubility	DMSO: 100 mg/mL (279.84 mM)	
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7984 mL	13.9919 mL	27.9838 mL
5 mM	0.5597 mL	2.7984 mL	5.5968 mL
10 mM	0.2798 mL	1.3992 mL	2.7984 mL
50 mM	0.056 mL	0.2798 mL	0.5597 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.

Reference

Simard-Duquesne N, et al. The effects of a new aldose reductase inhibitor (tolrestat) in galactosemic and diabetic rats. Metabolism. 1985 Oct;34(10):885-92.

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