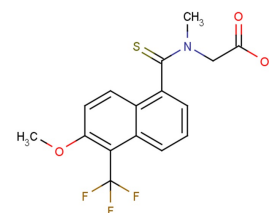


Data Sheet (Cat.No.T17114)

Tolrestat

Chemical Properties

| | |
|-------------------|--|
| CAS No.: | 82964-04-3 |
| Formula: | C ₁₆ H ₁₄ F ₃ NO ₃ S |
| Molecular Weight: | 357.35 |
| Appearance: | N/A |
| Storage: | 0-4°C for short term (days to weeks), or -20°C for long term (months). |



Biological Description

| | |
|----------------------------|--|
| Description | Tolrestat is a potent and orally active inhibitor of aldose reductase (IC ₅₀ : 35 nM). |
| Targets(IC ₅₀) | Aldose Reductase: 35 nM |
| In vivo | Tolrestat (1.8 mg/kg per day) causes a reversal to normal RBC sorbitol levels of diabetic rats. The estimated ID in the sciatic nerve and lenses is 4.8 and about 20 for tolrestat, and 1.7 and 2.2 for (±)sorbitol, respectively in 21-day diabetic rats. Either tolrestat or sorbitol inhibits tissue AR activity but does not significantly affect plasma lipoprotein levels, or affect the bodyweight of the mice or their general health [1][2][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 | 2.798 mL | 13.992 mL | 27.984 mL |
| 5 mM | 0.56 mL | 2.798 mL | 5.597 mL |
| 10 mM | 0.28 mL | 1.399 mL | 2.798 mL |
| 50 mM | 0.056 mL | 0.28 mL | 0.56 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 °C for 6 months; - 20 °C for 1 month. 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.
- Srivastava S, et al. Aldose reductase protects against early atherosclerotic lesion formation in apolipoprotein E-null mice. *Circ Res*. 2009 Oct 9;105(8):793-802.

Inhibitors · Natural Compounds · Compound Libraries

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