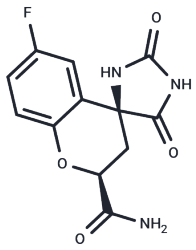
Data Sheet (Cat.No.T15281)

TargetMol

Fidarestat

Chemical Properties



CAS No. : 136087-85-9

Formula: C12H10FN3O4

Molecular Weight: 279.22

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	Fidarestat (SNK 860), an aldose reductase inhibitor, exhibits IC50 values of 26 nM, 33 μM, and 1.8 μM against aldose reductase, AKR1B10, and V301L AKR1B10 respectively, demonstrating potential for diabetes treatment.
Targets(IC50)	Reductase
In vivo	Fidarestat (1 or 4 mg/kg, orally, daily, for 4 weeks) treatment of diabetic rats reduced sorbitol and fructose concentrations in diabetic rats.[1]

Solubility Information

Solubility	DMSO: 100 mg/mL (358.14 mM),Sonication is 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 (14.33 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	3.5814 mL	17.907 mL	35.8141 mL
5 mM	0.7163 mL	3.5814 mL	7.1628 mL
10 mM	0.3581 mL	1.7907 mL	3.5814 mL
50 mM	0.0716 mL	0.3581 mL	0.7163 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

Ruiz FX, et al. X-ray structure of the V301L aldo-keto reductase 1B10 complexed with NADP(+) and the potent aldose reductase inhibitor fidarestat: implications for inhibitor binding and selectivity. Chem Biol Interact. 2013 Feb 25;202(1-3):178-85.

Hotta N, et al. Effect of an aldose reductase inhibitor, SNK-860, on deficits in the electroretinogram of diabetic rats. Exp Physiol. 1995 Nov;80(6):981-9.