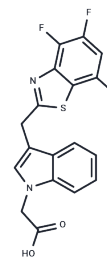


Lidorestat

Chemical Properties

CAS No. :	245116-90-9
Formula:	C ₁₈ H ₁₁ F ₃ N ₂ O ₂ S
Molecular Weight:	376.35
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	Lidorestat (IDD-676) is an aldose reductase inhibitor (IC ₅₀ : 5 nM) with effective, selective and oral activity. Lidorestat improves nerve conduction and reduces the formation of cataracts. Lidorestat can be used to treat complications of chronic diabetes.
Targets(IC ₅₀)	Reductase
In vitro	Lidorestat's reported IC ₅₀ value for recombinant human aldose reductase (/h/-ALR2) in in vitro experiments is 5 μM. against recombinant human aldehyde reductase (/h/-ALR1), the selectivity ratio of /h/-ALR1 to /h/-ALR2 is 5400:1 [1,2].
In vivo	Lidorestat (25 mg/kg/day, oral administration, twice daily for 6 weeks) reduces fructose levels and lowers mortality rates in diabetic, hAR-expressing mice without affecting weight.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (132.86 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: 1 mg/mL (2.66 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6571 mL	13.2855 mL	26.571 mL
5 mM	0.5314 mL	2.6571 mL	5.3142 mL
10 mM	0.2657 mL	1.3286 mL	2.6571 mL
50 mM	0.0531 mL	0.2657 mL	0.5314 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

Noh HL, et al. Regulation of plasma fructose and mortality in mice by the aldose reductase inhibitor lidorestat. *J Pharmacol Exp Ther.* 2009;328(2):496-503.

Van Zandt MC, et al. Discovery of 3-[(4,5,7-trifluorobenzothiazol-2-yl)methyl]indole-N-acetic acid (lidorestat) and congeners as highly potent and selective inhibitors of aldose reductase for treatment of chronic diabetic complications. *J Med Chem.* 2005;48(9):3141-3152.

Maccari R, et al. Identification of new non-carboxylic acid containing inhibitors of aldose reductase. *Bioorg Med Chem.* 2010;18(11):4049-4055.

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