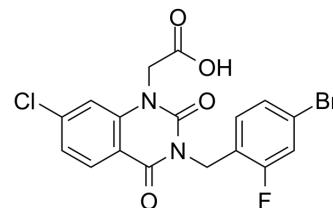


## Zenarestat

<b>Cat. No.:</b>	HY-116239		
<b>CAS No.:</b>	112733-06-9		
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>11</sub> BrClFN <sub>2</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	441.64		
<b>Target:</b>	Aldose Reductase		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (226.43 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.2643 mL	11.3214 mL	22.6429 mL
		5 mM	0.4529 mL	2.2643 mL	4.5286 mL
10 mM		0.2264 mL	1.1321 mL	2.2643 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 25 mg/mL (56.61 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.66 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Zenarestat is a potent and orally active aldose reductase inhibitor. Zenarestat improves diabetic peripheral neuropathy in Zucker diabetic fatty rats <sup>[1]</sup> .	
<b>In Vivo</b>	Zenarestat (3.2, 32 mg/kg; p.o.; daily for 8 weeks) inhibits nerve sorbitol accumulation in a dose-dependent manner <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	<b>Animal Model:</b>	Zucker diabetic fatty (ZFD) rats (type 2 diabetes models) <sup>[1]</sup>
	<b>Dosage:</b>	3.2, 32 mg/kg

Administration:	P.o.; daily for 8 weeks
Result:	At 3.2 mg/kg, zenarestat had no significant effect on the delay in F-wave minimal latency (FML) and the slowing of motor nerve conduction velocity (MNCV), although the sorbitol accumulation in the sciatic nerve was partially inhibited in ZDF rats. At 32 mg/kg zenarestat treatment improved these nerve dysfunctions in ZDF rats, along with a reduction of nerve sorbitol accumulation almost to the level of lean rats.

## REFERENCES

[1]. Shimoshige Y, et al. The effects of zenarestat, an aldose reductase inhibitor, on peripheral neuropathy in Zucker diabetic fatty rats. *Metabolism*. 2000;49(11):1395-1399.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA