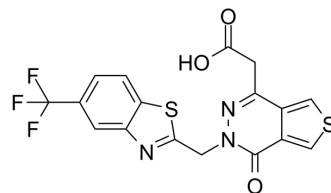


Govorestat

Cat. No.:	HY-129586		
CAS No.:	2170729-29-8		
Molecular Formula:	C ₁₇ H ₁₀ F ₃ N ₃ O ₃ S ₂		
Molecular Weight:	425.4		
Target:	Aldose Reductase		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 35.71 mg/mL (83.94 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.3507 mL	11.7536 mL	23.5073 mL
		5 mM	0.4701 mL	2.3507 mL	4.7015 mL
10 mM		0.2351 mL	1.1754 mL	2.3507 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.25 mg/mL (5.29 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.25 mg/mL (5.29 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Govorestat (AT-007) is an orally active brain-penetrant aldose reductase inhibitor with an IC ₅₀ value of 100 pM. Govorestat has the potential for galactose-1-phosphate uridyl transferase deficiency research ^[1] .
IC₅₀ & Target	IC ₅₀ : 100 pM (Aldose Reductase) ^[2]
In Vitro	Govorestat (AT-007) inhibits the conversion of glucose to Sorbitol. Govorestat significantly reduces Sorbitol levels in fibroblasts, induced pluripotent stem cell-derived (iPSC-derived) motor neurons, and Drosophila brains ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Govorestat (AT-007) feeding in Sord-deficient Drosophila mitigated synaptic degeneration and significantly improves

synaptic transduction, locomotor activity, and mitochondrial function. Moreover, Govorestat treatment significantly reduces ROS accumulation in *Drosophila* CNS^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Yi Zhu, et al. Sorbitol reduction via govorestat ameliorates synaptic dysfunction and neurodegeneration in sorbitol dehydrogenase deficiency. *JCI Insight*. 2023 May 22;8(10):e164954.

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

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