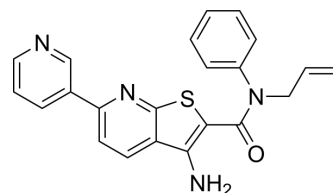


## SOD1-Derlin-1 inhibitor-2

<b>Cat. No.:</b>	HY-123982		
<b>CAS No.:</b>	2170170-27-9		
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>18</sub> N <sub>4</sub> OS		
<b>Molecular Weight:</b>	386.47		
<b>Target:</b>	Others		
<b>Pathway:</b>	Others		
<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 : 50 mg/mL (129.38 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.5875 mL	12.9376 mL	25.8752 mL
		5 mM	0.5175 mL	2.5875 mL	5.1750 mL
10 mM		0.2588 mL	1.2938 mL	2.5875 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; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (6.47 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: 2.5 mg/mL (6.47 mM); Suspended solution; Need ultrasonic</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	SOD1-Derlin-1 inhibitor-2 (compound 56-59) is an inhibitor of SOD1-Derlin-1 interaction. SOD1-Derlin-1 inhibitor-2 attenuates the interactions between Derlin-1 and SOD1 <sup>mut</sup> . SOD1-Derlin-1 inhibitor-2 can be used for the research of amyotrophic lateral sclerosis (ALS) <sup>[1]</sup> .
<b>In Vitro</b>	SOD1-Derlin-1 inhibitor-2 (compound 56-59; 0.1-100 μM) inhibits the SOD1-Derlin-1 interaction in a dose-dependent manner [1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	SOD1-Derlin-1 inhibitor-2 (compound 56-59; i.c.v.; 3 mM, flow rate 0.15 μL/h) ameliorates ALS pathology in ALS model mice [1].

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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	ALS model C57BL/6 mice <sup>[1]</sup>
Dosage:	3 mM, flow rate 0.15 µL/h
Administration:	intracerebroventricular injection
Result:	Had significantly delayed onset, by a median of 4.5 weeks (14.5% improvement) and prolonged survival, by a median of 5 weeks (14.2% improvement).

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## REFERENCES

[1]. Tsuburaya N, et al. A small-molecule inhibitor of SOD1-Derlin-1 interaction ameliorates pathology in an ALS mouse model. Nat Commun. 2018 Jul 10;9(1):2668.

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

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