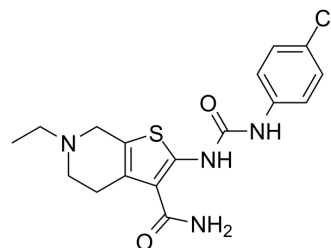


## PROTO-1

<b>Cat. No.:</b>	HY-18673		
<b>CAS No.:</b>	312951-85-2		
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>19</sub> ClN <sub>4</sub> O <sub>2</sub> S		
<b>Molecular Weight:</b>	378.88		
<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 : 125 mg/mL (329.92 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.6394 mL	13.1968 mL	26.3936 mL
		5 mM	0.5279 mL	2.6394 mL	5.2787 mL
10 mM		0.2639 mL	1.3197 mL	2.6394 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (5.49 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.49 mM); Clear solution				

## BIOLOGICAL ACTIVITY

<b>Description</b>	PROTO-1 is a hair cell protector and can be used in studies of ototoxicity-induced hair cell death <sup>[1]</sup> .	
<b>In Vitro</b>	PROTO-1 (1, 10 μM; 1.5 h) show significant protection of hair cells over a broad range of neomycin concentrations <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay <sup>[1]</sup>	
	Cell Line:	Sensory hair cell
	Concentration:	1, 10 μM

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Incubation Time:	1.5 h (pre-treat for 1 h, then expose to neomycin for 0.5 h)
Result:	Significant protected hair cells when exposed to 200 mM neomycin.

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## REFERENCES

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[1]. Owens KN, et al. Identification of genetic and chemical modulators of zebrafish mechanosensory hair cell death. PLoS Genet. 2008 Feb 29;4(2):e1000020.

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

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