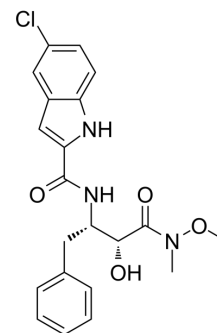


## CP-316819

<b>Cat. No.:</b>	HY-108615		
<b>CAS No.:</b>	186392-43-8		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>22</sub> ClN <sub>3</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	415.87		
<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 (300.57 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.4046 mL	12.0230 mL	24.0460 mL
		5 mM	0.4809 mL	2.4046 mL	4.8092 mL
10 mM		0.2405 mL	1.2023 mL	2.4046 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 (5.00 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.00 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	<p>CP 316819 is a potent glycogen phosphorylase (GPase) inhibitor with antihyperglycemic effect (IC<sub>50</sub> values are 17 and 34 nM against human skeletal muscle glycogen phosphorylase (huSMGPa) and liver glycogen phosphorylase (huLGPa) respectively). CP 316819 causes glycogen accumulation under normoglycemic conditions but permits glycogen utilization when glucose concentrations are low. CP-316819 prevents neuronal cell death and maintains brain electrical currents<sup>[1][2]</sup>.</p>
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### REFERENCES

[1]. Baker DJ, Timmons JA, Greenhaff PL. Glycogen phosphorylase inhibition in type 2 diabetes therapy: a systematic evaluation of metabolic and functional effects in rat skeletal muscle. *Diabetes*. 2005 Aug;54(8):2453-9.

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[2]. Suh SW, Bergher JP, Anderson CM, Treadway JL, Fosgerau K, Swanson RA. Astrocyte glycogen sustains neuronal activity during hypoglycemia: studies with the glycogen phosphorylase inhibitor CP-316,819 ([R-R\*,S\*]-5-chloro-N-[2-hydroxy-3-(methoxymethylamino)-3

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

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