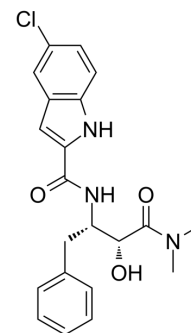


## CP-91149

<b>Cat. No.:</b>	HY-13525		
<b>CAS No.:</b>	186392-40-5		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>22</sub> ClN <sub>3</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	399.87		
<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

#### In Vitro

DMSO : 100 mg/mL (250.08 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.5008 mL	12.5041 mL	25.0081 mL
	5 mM	0.5002 mL	2.5008 mL	5.0016 mL
	10 mM	0.2501 mL	1.2504 mL	2.5008 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (6.25 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (6.25 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

CP-91149 is a GP (glycogen phosphorylase) inhibitor. CP-91149 promotes glycogen resynthesis, but not its overaccumulation. CP-91149 has the potential for Type II (insulin-dependent) diabetes study<sup>[1]</sup>.

#### In Vitro

CP-91149 treatment decreases muscle GP activity by converting the phosphorylated AMP-independent α form into the dephosphorylated AMP-dependent β form and inhibiting GP α activity and AMP-mediated GP β activation<sup>[1]</sup>. CP-91149 (10, 30, 50 μM) inhibits brain GP and causes glycogen accumulation in A549 cells<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.  
Cell Viability Assay<sup>[1]</sup>

Cell Line:	Cells were transduced with adenoviruses and incubated in the presence of 25 mM glucose for 2 days.
Concentration:	10 $\mu$ M (glucose- or glucose+ for 18 h).
Incubation Time:	3 h.
Result:	Promoted the conversion of GP a into GP b, according to a model proposed in hepatocytes.

#### Western Blot Analysis<sup>[2]</sup>

Cell Line:	A549 cells.
Concentration:	0, 10, 30, 50 $\mu$ M.
Incubation Time:	72 h.
Result:	A significant increase in glycogen accumulation was detected at 10 $\mu$ M of CP-91149 as compared with untreated cells with a maximal glycogen accumulation at 30 $\mu$ M. Intracellular glycogen content decreased at 50 $\mu$ M CP-91149, perhaps explained by additional pharmacological effects of the drug. The dose-dependent accumulation of intracellular glycogen in A549 cells by CP-91149 indicates that CP-91149 inhibits brain GP in tissue culture.

## CUSTOMER VALIDATION

- J Ginseng Res. 2023 Jun 30.

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

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