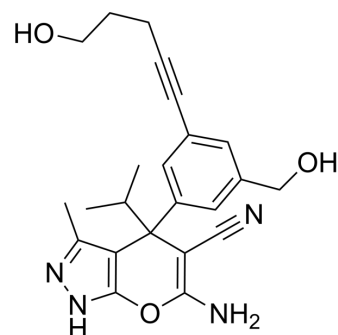


## (Rac)-SHIN2

<b>Cat. No.:</b>	HY-134978		
<b>CAS No.:</b>	2204289-53-0		
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>26</sub> N <sub>4</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	406.48		
<b>Target:</b>	SHMT		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<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 (246.01 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.4601 mL	12.3007 mL	24.6015 mL
	5 mM	0.4920 mL	2.4601 mL	4.9203 mL
	10 mM	0.2460 mL	1.2301 mL	2.4601 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 (6.15 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (6.15 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (6.15 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

(Rac)-SHIN2 is a serine hydroxymethyltransferase (SHMT) inhibitor having 1,4-dihydropyrano[2,3-c]pyrazole structure. (Rac)-SHIN2 involves in folate or one-carbon metabolism pathways, prevents viral infection. SHMT1 and SHMT2 are the cytosolic and/or mitochondrial isoforms of serine hydroxymethyltransferase, respectively<sup>[1]</sup>. (Rac)-SHIN2 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAC) with molecules containing Azide groups.

#### IC<sub>50</sub> & Target

Serine hydroxymethyltransferase (SHMT)<sup>[1]</sup>

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## REFERENCES

[1]. Mootha Vamsi, et al. Method of treating and preventing viral infection comprising inhibitors of folate or one-carbon metabolism pathways such as serine hydroxymethyltransferase inhibitors: World Intellectual Property Organization, WO2022120195[P]. 2022-06-09.

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

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