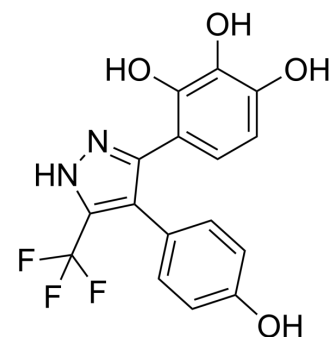


yGsy2p-IN-1

Cat. No.:	HY-131062		
CAS No.:	2415003-97-1		
Molecular Formula:	C ₁₆ H ₁₁ F ₃ N ₂ O ₄		
Molecular Weight:	352.26		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 62.5 mg/mL (177.43 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.8388 mL	14.1941 mL	28.3881 mL
		5 mM	0.5678 mL	2.8388 mL	5.6776 mL
10 mM		0.2839 mL	1.4194 mL	2.8388 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (5.90 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.90 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.90 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	yGsy2p-IN-1 is a potent inhibitor for yeast glycogen synthase 2 (yGsy2p). yGsy2p-IN-1 is a competitive human glycogen synthase 1 (hGYS1) inhibitor with an IC ₅₀ of 2.75 μM and a K _i of 1.31 μM for wild-type hGYS1. yGsy2p-IN-H23 a pyrazole inhibitor, is used for glycogen storage diseases (GSDs) ^[1] .
IC₅₀ & Target	IC ₅₀ : 2.75 μM (hGYS1) ^[1] K _i : 1.31 μM (wild-type hGYS1) ^[1]

In Vitro

yGsy2p-IN-1 (compound 23; 0.1, 1, 10, 100, 1000 μM) has IC_{50}s of 7.89 μM and 33.6 μM for yGsy2p-WT and yGsy2p-Y513L^[1]. yGsy2p-IN-1 (100 μM) exhibits almost complete inhibition of synthase activity in both HEK293-PTG and Rat-1 cell lysates^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Buyun Tang, et al. Discovery and Development of Small-Molecule Inhibitors of Glycogen Synthase. J Med Chem. 2020 Apr 9;63(7):3538-3551.

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

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