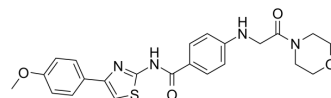


## SBI-993

Cat. No.:	HY-122682
CAS No.:	2073059-82-0
Molecular Formula:	C <sub>23</sub> H <sub>24</sub> N <sub>4</sub> O <sub>4</sub> S
Molecular Weight:	452.53
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (220.98 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.2098 mL	11.0490 mL	22.0980 mL	
5 mM	0.4420 mL	2.2098 mL	4.4196 mL	
10 mM	0.2210 mL	1.1049 mL	2.2098 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

SBI-993 is a SBI-477 analog with improved potency and suitable pharmacokinetic properties for in vivo bioavailability. SBI-993 stimulates insulin signaling by deactivating the transcription factor MondoA<sup>[1]</sup>.

#### In Vitro

SBI-993 reduces thioredoxin-interacting protein (TXNIP) and arrestin domain-containing 4 (ARRDC4) expression in human myotubes<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

SBI-993 (50 mg/kg; s.c.; daily; for 7 days) treatment reduces the expression of triacylglyceride synthesis and lipogenic genes in both muscle and liver. SBI-993 also reduces Txnip and Arrdc4 expression. And occupation of both ChREBP and MondoA on the Txnip and pyruvate kinase (Pklr) gene promoters is reduced in liver by SBI-993<sup>[1]</sup>.

SBI-993 improves insulin signaling in both muscle and liver following an acute insulin challenge<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model: Mice are fed a 60% high-fat diet (HFD)<sup>[1]</sup>

Dosage: 50 mg/kg

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Administration:	s.c.; daily; for 7 days
Result:	Reduced the expression of triacylglyceride synthesis and lipogenic genes in both muscle and liver.

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## REFERENCES

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[1]. Byungyong Ahn, et al. MondoA coordinately regulates skeletal myocyte lipid homeostasis and insulin signaling. J Clin Invest. 2016 Sep 1;126(9):3567-79.

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

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