Product data sheet



MedKoo Cat#: 555895				
Name: SBI-477				
CAS#: 781628-99-7				
Chemical Formula: C ₂₄ H ₂₅ N ₃ O ₆ S				
Exact Mass: 483.1464				
Molecular Weight: 483.54				
Product supplied as:	Powder			
Purity (by HPLC):	$\geq 98\%$			
Shipping conditions	Ambient temperature			
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.			
	In solvent: -80°C 3 months; -20°C 2 weeks.			



1. Product description:

SBI-477 is a chemical probe stimulated insulin signaling by deactivating the transcription factor MondoA. SBI-477 inhibited triacylglyceride (TAG) synthesis and enhanced basal glucose uptake in human skeletal myocytes. SBI-477 stimulated insulin signaling by deactivating the transcription factor MondoA, leading to reduced expression of the insulin pathway suppressors thioredoxin-interacting protein (TXNIP) and arrestin domain-containing 4 (ARRDC4).

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	65	134.43

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.07 mL	10.34 mL	20.68 mL
5 mM	0.41 mL	2.07 mL	4.14 mL
10 mM	0.21 mL	1.03 mL	2.07 mL
50 mM	0.04 mL	0.21 mL	0.41 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

- Tamura N, Maejima Y, Matsumura T, Vega RB, Amiya E, Ito Y, Shiheido-Watanabe Y, Ashikaga T, Komuro I, Kelly DP, Hirao K, Isobe M. Single-Nucleotide Polymorphism of the MLX Gene Is Associated With Takayasu Arteritis. Circ Genom Precis Med. 2018 Oct;11(10):e002296. doi: 10.1161/CIRCGEN.118.002296. PMID: 30354298; PMCID: PMC6522131.
- Ahn B, Soundarapandian MM, Sessions H, Peddibhotla S, Roth GP, Li JL, Sugarman E, Koo A, Malany S, Wang M, Yea K, Brooks J, Leone TC, Han X, Vega RB, Kelly DP. MondoA coordinately regulates skeletal myocyte lipid homeostasis and insulin signaling. J Clin Invest. 2016 Sep 1;126(9):3567-79. doi: 10.1172/JCI87382. Epub 2016 Aug 8. PMID: 27500491; PMCID: PMC5004938.

In vivo study

To be determined

7. Bioactivity

Biological target:

SBI-477 deactivates MondoA, leading to reduced expression of TXNIP and ARRDC4. SBI-477 inhibits TAG synthesis and enhances basal glucose uptake in human skeletal myocytes.

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In vitro activity

SBI-477 coordinately inhibited TAG synthesis and enhanced basal glucose uptake in human skeletal myocytes. SBI-477 stimulated insulin signaling by deactivating MondoA, leading to reduced expression of the insulin pathway suppressors TXNI and ARRDC4.

Reference: J Clin Invest. 2016 Sep 1;126(9):3567-79. <u>https://pubmed.ncbi.nlm.nih.gov/27500491/</u>

In vivo activity

To be determined

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.