# **Product data sheet**



MedKoo Cat#: 522510				
Name: SBC-115076				
CAS#: 489415-96-5				
Chemical Formula: C <sub>31</sub> H <sub>33</sub> N <sub>3</sub> O <sub>5</sub>				
Exact Mass: 527.24202				
Molecular Weight: 527.62				
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:

SBC-115076 is a potent extracellular proprotein convertase subtilisin kexin type 9 (PCSK9) antagonist.

# 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	46.0	87.18
DMSO:PBS (pH 7.2)	0.5	0.95
(1:1)		
DMF	2.0	3.79

#### 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.90 mL	9.48 mL	18.95 mL
5 mM	0.38 mL	1.90 mL	3.79 mL
10 mM	0.19 mL	0.95 mL	1.90 mL
50 mM	0.04 mL	0.19 mL	0.38 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

 Jin P, Gao D, Cong G, Yan R, Jia S. Role of PCSK9 in Homocysteine-Accelerated Lipid Accumulation in Macrophages and Atherosclerosis in ApoE-/- Mice. Front Cardiovasc Med. 2021 Oct 1;8:746989. doi: 10.3389/fcvm.2021.746989. PMID: 34660746; PMCID: PMC8517151.

In vivo study

- Wu C, Lin D, Ji J, Jiang Y, Jiang F, Wang Y. PCSK9 Inhibition Regulates Infarction-Induced Cardiac Myofibroblast Transdifferentiation via Notch1 Signaling. Cell Biochem Biophys. 2023 Jun;81(2):359-369. doi: 10.1007/s12013-023-01136-1. Epub 2023 Apr 21. PMID: 37081375.
- Thonusin C, Apaijai N, Jaiwongkam T, Kerdphoo S, Arunsak B, Amput P, Palee S, Pratchayasakul W, Chattipakorn N, Chattipakorn SC. The comparative effects of high dose atorvastatin and proprotein convertase subtilisin/kexin type 9 inhibitor on the mitochondria of oxidative muscle fibers in obese-insulin resistant female rats. Toxicol Appl Pharmacol. 2019 Nov 1;382:114741. doi: 10.1016/j.taap.2019.114741. Epub 2019 Aug 29. PMID: 31473249.

# 7. Bioactivity

Biological target:

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SBC-115076 is a potent proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitor.

#### In vitro activity

SBC-115076 demonstrated potential in preventing atherosclerosis accelerated by homocysteine (Hcy) in vitro. SBC-115076inhibited PCSK9, reducing lipid accumulation and restoring cholesterol efflux via ABCA1 and ABCG1 in THP-1 macrophages exposed to Hcy.

Reference: Front Cardiovasc Med. 2021 Oct 1;8:746989. https://pubmed.ncbi.nlm.nih.gov/34660746/

#### In vivo activity

In rats fed a high-fat diet (HFD), treatment with SBC-115076 and atorvastatin resulted in reduced body weight, visceral fat, and cholesterol levels compared to vehicle-treated rats. However, SBC-115076 showed greater efficacy in mitigating obesity and dyslipidemia than the high-dose atorvastatin, indicating a more substantial effect in countering the effects of the high-fat diet. Notably, the levels of HDL cholesterol did not exhibit differences among the groups.

Reference: Toxicol Appl Pharmacol. 2019 Nov 1;382:114741. https://pubmed.ncbi.nlm.nih.gov/31473249/

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.