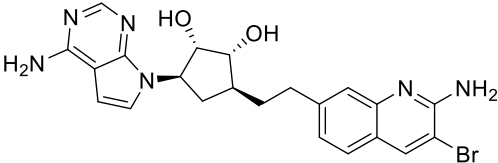


Product data sheet



MedKoo Cat#: 206820 Name: JNJ-64619178 CAS: 2086772-26-9 Chemical Formula: C ₂₂ H ₂₃ BrN ₆ O ₂ Exact Mass: 482.1066 Molecular Weight: 483.37	
Product supplied as:	Powder
Purity (by HPLC):	≥ 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:

Onametostat, also known as JNJ-64619178, is an inhibitor of protein arginine methyltransferase 5 (PRMT5). It inhibits the growth of various cancer cells in vitro and reduces tumor growth in non-small cell lung cancer (NSCLC) and small cell lung cancer (SCLC) mouse xenograft models.

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	111.0	229.64

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.07 mL	10.34 mL	20.69 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

- Li BX, David LL, Davis LE, Xiao X. Protein arginine methyltransferase 5 is essential for oncogene product EWSR1-ATF1-mediated gene transcription in clear cell sarcoma. *J Biol Chem.* 2022 Oct;298(10):102434. doi: 10.1016/j.jbc.2022.102434. Epub 2022 Aug 27. PMID: 36041632; PMCID: PMC9513783.
- Zhou J, Horton JR, Yu D, Ren R, Blumenthal RM, Zhang X, Cheng X. Repurposing epigenetic inhibitors to target the *Clostridioides difficile*-specific DNA adenine methyltransferase and sporulation regulator CamA. *Epigenetics.* 2022 Sep;17(9):970-981. doi: 10.1080/15592294.2021.1976910. Epub 2021 Sep 15. PMID: 34523387; PMCID: PMC9487755.

In vivo study

- Li BX, David LL, Davis LE, Xiao X. Protein arginine methyltransferase 5 is essential for oncogene product EWSR1-ATF1-mediated gene transcription in clear cell sarcoma. *J Biol Chem.* 2022 Oct;298(10):102434. doi: 10.1016/j.jbc.2022.102434. Epub 2022 Aug 27. PMID: 36041632; PMCID: PMC9513783.

7. Bioactivity

Biological target:

JNJ-64619178 (Onametostat) is a selective, orally active and pseudo-irreversible protein arginine methyltransferase 5 (PRMT5) inhibitor with an IC₅₀ of 0.14 nM.

Product data sheet



In vitro activity

This study found that SGC0946 (an inhibitor of DOT1L), JNJ-64619178 (an inhibitor of PRMT5) and SGC8158 (an inhibitor of PRMT7) inhibit CamA enzymatic activity in vitro at low micromolar concentrations.

Reference: Epigenetics. 2022 Sep;17(9):970-981. <https://pubmed.ncbi.nlm.nih.gov/34523387/>

In vivo activity

On the other hand, when the mice were treated with JNJ-64619178, the tumor growth was essentially completely inhibited. These results support that the PRMT5 inhibitor JNJ-64619178 represents a potential treatment option for CCSST.

Reference: J Biol Chem. 2022 Oct;298(10):102434. <https://pubmed.ncbi.nlm.nih.gov/36041632/>

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.