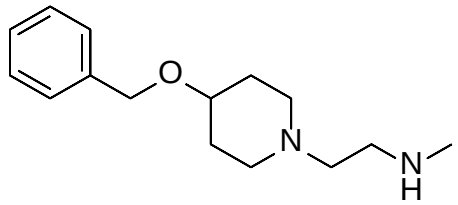
Product data sheet

MedKoo Cat#: 527462 Name: MS049 CAS: 1502816-23-0 Chemical Formula: $C_{15}H_{24}N_2O$ Exact Mass: 248.1889 Molecular Weight: 248.37	
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:
MS049 is a potent and selective inhibitor of PRMT4,6 and is active in cells.

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	31.0	124.81
Water	100.0	402.63

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.03 mL	20.13 mL	40.26 mL
5 mM	0.81 mL	4.03 mL	8.05 mL
10 mM	0.40 mL	2.01 mL	4.03 mL
50 mM	0.08 mL	0.40 mL	0.81 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

Shen Y, Szewczyk MM, Eram MS, Smil D, Kaniskan HÜ, de Freitas RF, Senisterra G, Li F, Schapira M, Brown PJ, Arrowsmith CH, Barsyte-Lovejoy D, Liu J, Vedadi M, Jin J. Discovery of a Potent, Selective, and Cell-Active Dual Inhibitor of Protein Arginine Methyltransferase 4 and Protein Arginine Methyltransferase 6. J Med Chem. 2016 Oct 13;59(19):9124-9139. doi: 10.1021/acs.jmedchem.6b01033. Epub 2016 Sep 15. PMID: 27584694; PMCID: PMC5063716.

In vivo study

TBD

7. Bioactivity
Biological target:

MS049 is a potent, selective, and cell-active dual inhibitor of PRMT4 and PRMT6 with IC_{50}s of 34 nM and 43 nM.

In vitro activity

The studies led to the discovery of a potent, selective, and cell-active dual inhibitor of PRMT4 and PRMT6, 17 (MS049). As compared to 4, 17 displayed much improved potency for PRMT4 and PRMT6 in both biochemical and cellular assays. It was selective for PRMT4 and PRMT6 over other PRMTs and a broad range of other epigenetic modifiers and nonepigenetic targets.

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Reference: J Med Chem. 2016 Oct 13;59(19):9124-9139. https://pubmed.ncbi.nlm.nih.gov/27584694/

In vivo activity

TBD

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.