

# Product data sheet



MedKoo Cat#: 465267 Name: BRD0639 CAS#: unknown Chemical Formula: C <sub>21</sub> H <sub>22</sub> ClN <sub>5</sub> O <sub>4</sub> S Exact Mass: 475.1081 Molecular Weight: 475.948		
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:

BRD0639 is a potent PRMT5 inhibitor. BRD0639 engages the target in cells, disrupts PRMT5-RIOK1 complexes, and reduces substrate methylation. BRD0639 is a first-in-class PBM-competitive inhibitor that can support studies of PBM-dependent PRMT5 activities and the development of novel PRMT5 inhibitors that selectively target these functions.

## 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	172.5	362.43

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.10 mL	10.51 mL	21.01 mL
5 mM	0.42 mL	2.10 mL	4.20 mL
10 mM	0.21 mL	1.05 mL	2.10 mL
50 mM	0.04 mL	0.21 mL	0.42 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

1. McKinney DC, McMillan BJ, Ranaghan MJ, Moroco JA, Brousseau M, Mullin-Bernstein Z, O'Keefe M, McCarren P, Mesleh MF, Mulvaney KM, Robinson F, Singh R, Bajrami B, Wagner FF, Hilgraf R, Drysdale MJ, Campbell AJ, Skepner A, Timm DE, Porter D, Kaushik VK, Sellers WR, Ianari A. Discovery of a First-in-Class Inhibitor of the PRMT5-Substrate Adaptor Interaction. J Med Chem. 2021 Aug 12;64(15):11148-11168. doi: 10.1021/acs.jmedchem.1c00507. Epub 2021 Aug 3. PMID: 34342224.

### In vivo study

TBD

## 7. Bioactivity

### Biological target:

BRD0639 is a first-in-class inhibitor of the PRMT5-substrate adaptor interaction.

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## In vitro activity

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Optimization of the starting hit produced a lead compound, BRD0639, which engages the target in cells, disrupts PRMT5-RIOK1 complexes, and reduces substrate methylation. BRD0639 is a first-in-class PBM-competitive inhibitor that can support studies of PBM-dependent PRMT5 activities and the development of novel PRMT5 inhibitors that selectively target these functions.

Reference: J Med Chem. 2021 Aug 12;64(15):11148-11168. <https://pubmed.ncbi.nlm.nih.gov/34342224/>

## In vivo activity

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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.*