

Product data sheet



MedKoo Cat#: 526342 Name: PF-9366 CAS#: 72882-78-1 Chemical Formula: C ₂₀ H ₁₉ ClN ₄ Exact Mass: 350.1298 Molecular Weight: 350.85	
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:

PF-9366 is a novel inhibitor of human methionine adenosyltransferase 2A (Mat2A), the extrahepatic isoform.

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	2.0	5.7

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.85 mL	14.25 mL	28.50 mL
5 mM	0.57 mL	2.85 mL	5.70 mL
10 mM	0.29 mL	1.43 mL	2.85 mL
50 mM	0.06 mL	0.29 mL	0.57 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. Secker KA, Bloechl B, Keppeler H, Durr-Stoerzer S, Schmid H, Schneidawind D, Jeong J, Hentrich T, Schulze-Hentrich JM, Schneidawind C. MAT2A as Key Regulator and Therapeutic Target in MLLr Leukemogenesis. *Cancers (Basel)*. 2020 May 24;12(5):1342. doi: 10.3390/cancers12051342. PMID: 32456310; PMCID: PMC7281730.

2. Quinlan CL, Kaiser SE, Bolaños B, Nowlin D, Grantner R, Karlicek-Bryant S, Feng JL, Jenkinson S, Freeman-Cook K, Dann SG, Wang X, Wells PA, Fantin VR, Stewart AE, Grant SK. Targeting S-adenosylmethionine biosynthesis with a novel allosteric inhibitor of Mat2A. *Nat Chem Biol*. 2017 Jul;13(7):785-792. doi: 10.1038/nchembio.2384. Epub 2017 May 29. PMID: 28553945.

In vivo study

N/A

7. Bioactivity

Biological target:

PF-9366 is a human methionine adenosyltransferase 2A (Mat2A) inhibitor, with an IC₅₀ of 420 nM and a K_d of 170 nM.

In vitro activity

Untreated (DMSO control) CRISPR/Cas9-MLLr cells presented an immature morphology whereas treatment with PF-9366 resulted in macrophage-like cells with an increase of apoptotic cells consistent with the upregulation of CD14 expression (Figure 4A,B). Consistently, a trend to downregulate the target gene expression of MEIS1 and HOXA9 upon PF-9366 treatment was observed,

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irrespective of day 4 or 6, although significance was not reached in all performed experiments (Figure 4C). These data suggest that the inhibition of MAT2A results in cell differentiation, induction of cell cycle arrest, and finally apoptosis in MLL fusion protein-driven leukemogenesis without any impact on control cells.

Reference: Cancers (Basel). 2020 May; 12(5): 1342. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7281730/>

In vivo activity

N/A

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.