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Data Sheet

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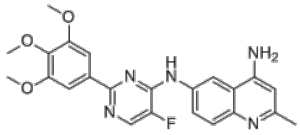
Product Name	:	JS1310
Cat. No.	:	PC-49724
CAS No.	:	2247753-73-5
Molecular Formula	:	$C_{23}H_{22}FN_5O_3$
Molecular Weight	:	435.46
Target	:	Histone Methyltransferase (HMTase)
Solubility	:	10 mM in DMSO



Biological Activity

JS1310 (JS-1310) is a specific small-molecule **PRMT7** inhibitor with IC50 of 5 uM (human PRMT7), displays no acitivity against type I PRMTs (PRMT1, 3, 4, 6, and 8, IC50 >100 uM) or the type II PRMT5 (IC50=50 uM).
JS1310 dramaticly decreased the arginine symmetric dimethylation of histone H2A (H2AR3me2s) but not the arginine asymmetric dimethylation of histone H4 (H4R3me2a) in primary leukemia cells isolated from the spleen of CML mice.
JS1310 impaired survival and self-renewal of human CML CD34+ cells, with minimal toxic effects on the survival and self-renewal of normal CD34+ cells.
JS1310 induced apoptosis in the primary CD34+CD38- leukemia cells as well as the quiescent CD34+ leukemia cells purified from individuals with CML, including an imatinib-resistant and relapsed individual harboring T315I/E255K/Y253H BCR-ABL.
JS1310 blocked PRMT7-TRPS1-GLDC signaling axis in long-term engrafted human CML CD34+ cells, inhibited the long-term engraftment capacity of CML CD34+ cells in NCG mice.

References

Chang Liu, et al. ***Cell Metab.*** 2022 Jun 7;34(6):818-835.e7.

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