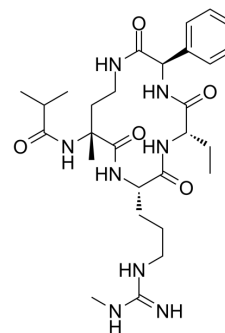


MM-589

Cat. No.:	HY-100869
CAS No.:	2097887-20-0
Molecular Formula:	C ₂₈ H ₄₄ N ₈ O ₅
Molecular Weight:	572.7
Target:	Histone Methyltransferase
Pathway:	Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MM-589 is a potent inhibitor of WD repeat domain 5 (WDR5) and mixed lineage leukemia (MLL) protein-protein interaction. MM-589 binds to WDR5 with an IC ₅₀ of 0.90 nM and inhibits the MLL H3K4 methyltransferase activity with an IC ₅₀ of 12.7 nM [1].								
IC₅₀ & Target	IC ₅₀ : 0.90 nM (WDR5), 12.7 nM (HMT) ^[1] Ki: <1 nM (WDR5) ^[1]								
In Vitro	<p>MM-589 (0.01-10 μM, 4 days or 7 days) potently and selectively inhibits cell growth in human leukemia cell lines harboring MLL translocations^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>MV4-11 and MOLM-13 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.01, 0.1, 1, 10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>4 days or 7 days</td> </tr> <tr> <td>Result:</td> <td>Potently inhibited MV4-11 and MOLM-13 cell growth with IC₅₀s of 0.25 and 0.21 μM, respectively. Had much weaker activity in the inhibition of cell growth of the HL-60 cell line with an IC₅₀ of 8.6 μM.</td> </tr> </table>	Cell Line:	MV4-11 and MOLM-13 cells	Concentration:	0.01, 0.1, 1, 10 μM	Incubation Time:	4 days or 7 days	Result:	Potently inhibited MV4-11 and MOLM-13 cell growth with IC ₅₀ s of 0.25 and 0.21 μM, respectively. Had much weaker activity in the inhibition of cell growth of the HL-60 cell line with an IC ₅₀ of 8.6 μM.
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REFERENCES

[1]. Karatas H, et al. Discovery of a Highly Potent, Cell-Permeable Macrocyclic Peptidomimetic (MM-589) Targeting the WD Repeat Domain 5 Protein (WDR5)-Mixed Lineage Leukemia (MLL) Protein-Protein Interaction. *J Med Chem.* 2017 Jun 22;60(12):4818-4839.

Caution: Product has not been fully validated for medical applications. For research use only.

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