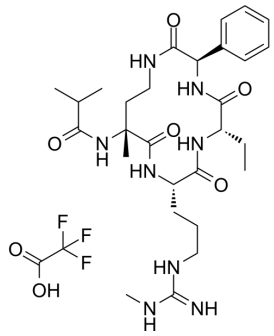
MM-589 TFA

Cat. No.:	HY-100869A
CAS No.:	2253167-09-6
Molecular Formula:	$C_{30}H_{45}F_3N_8O_7$
Molecular Weight:	686.72
Target:	Histone Methyltransferase
Pathway:	Epigenetics
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	MM-589 TFA 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].
IC_{50} & Target	IC50: 0.90 nM (WDR5), 12.7 nM (HMT)[1] Ki: <1 nM (WDR5)[1]
In Vitro	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]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay[1]

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.

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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