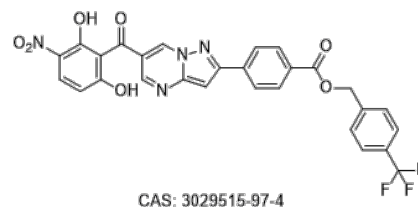


Product Name : DDO-2728
Cat. No. : PC-22677
CAS No. : 3029515-97-4
Molecular Formula : C₂₈H₁₇F₃N₄O₇
Molecular Weight : 578.46
Target : Histone Demethylase
Solubility : 10 mM in DMSO



Biological Activity

DDO-2728 is a selective, 2-OG independent inhibitor of mRNA m6A demethylase AlkB homologue 5 (**ALKBH5**) with IC₅₀ of 2.97 uM in FP assays, does not inhibit FTO (ALKBH9) and ALKBH3.

DDO-2728 directly binds to ALKBH5 with KD of 6.62 uM, but not FTO.

DDO-2728 does not bind to the 2-OG pocket.

DDO-2728 increases m6A methylation levels in the MOLM-13 cells and exhibits antiproliferation activity in AML cells with IC₅₀ of 0.45 and 1.2 uM for MOLM-13 and MV4-11 cells respectively.

DDO-2728 targets ALKBH5-TACC3 signaling axis, significantly reduces the abundance of TACC3 and c-Myc at both the mRNA and protein levels in MOLM-13 and MV4-11 cells.

DDO-2728 (10 mg/kg, i.p.) significantly inhibited tumor growth in MV4-11 xenograft tumor model.

References

Ying-Zhe Wang, et al. *J Med Chem*. 2023 Dec 14;66(23):15944-15959.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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