

Data Sheet

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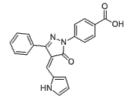
Product Name : MC4171 Cat. No. : PC-20777

CAS No. :

Molecular Formula : $C_{21}H_{15}N_3O_3$ **Molecular Weight :** 357.37

Target : Histone Acetyltransferase (HAT)

Solubility: 10 mM in DMSO



Biological Activity

MC4171 (KAT8 inhibitor 34) is a first-in-class, selective and reversible lysine acetyltransferase **KAT8** inhibitor with IC50 of 8.1 uM and SPR Kd of 2.04 uM.

MC4171 displays high selectivity against a panel of KATs (KAT2A and the MYST family members KAT5, KAT6A, KAT6B, and KAT7), KDACs (KDAC1–3, 6, and 8).

MC4171 exhibits target engagement as stabilizing KAT8 against thermal-induced aggregation in cells.

MC4171 (50 uM) reduces more than 50% reduction of H4K16Ac in HT29 CRC cell line, with no influence on KAT8 expression levels or on H3K27 acetylation (acetylated by KAT3A/B).

MC4171 displayed antiproliferative activity in A549 cells (65% cell proliferation inhibition at 50 uM; 80% cell proliferation inhibition at 100 uM).

MC4171 is cancer-selective, exhibits mid-micromolar antiproliferative activity in different cancer cell lines, including NSCLC and AML, without impacting the viability of nontransformed cells.

MC4171 is valuable chemical tool for elucidating KAT8 biology.

References

Francesco Fiorentino, et al. Journal of Medicinal Chemistry. May 8, 2023

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

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