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Data Sheet

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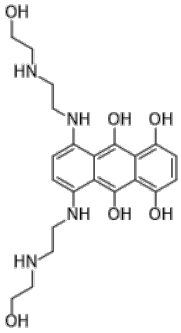
Product Name	:	DF-A7
Cat. No.	:	PC-22438
CAS No.	:	105580-96-9
Molecular Formula	:	$C_{22}H_{30}N_4O_6$
Molecular Weight	:	446.50
Target	:	Histone Methyltransferase (HMTase)
Solubility	:	10 mM in DMSO



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Biological Activity

DF-A7 a specific small-molecule degrader/inhibitor of m6A reader **YTHDF2** with IC50 of 50 nM in immunoblotting assays (HEK 293T cells), induces degradation of YTHDF2 without affecting the degradation of YTHDF1 and YTHDF3.
DF-A7 predictively binds to the YTHDF2 protein at the K416, G463, K521, N518, and R527 sites, forming a total of seven hydrogen bonds.
DF-A7 increases the mRNA expression of Cx3cl1 and PRR5 after degrading YTHDF2.
DF-A7 (12.5 mg/kg) significantly inhibited tumor growth compared with vehicle control in both MC38 and B16-OVA tumor models, significantly prolonged the survival of mice.
DF-A7 inhibits tumor growth and improves antitumor efficacy when in combination with PD-1/PD-L1 blockade therapy.

References

Xiao S, et al. ***Sci Immunol.*** 2024 May 31;9(95):eadl2171.

Durand M, et al. ***J Exp Clin Cancer Res***. 2024 May 22;43(1):148.

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