

Product Data Sheet

Product Name: DDO-2728

Cat. No.: GC73579

Chemical Properties

Cas. No. 3029515-97-4

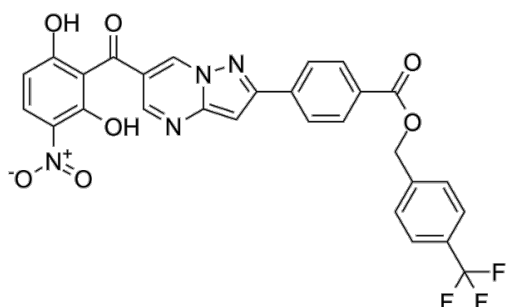
Formula $C_{28}H_{17}F_3N_4O_7$ M.Wt 578.45

Solubility DMSO : 125 mg/mL (216.09 mM; Storage -20°C
Need ultrasonic)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

DDO-2728 (compound 19) is a selective AlkB homologue 5 (ALKBH5) inhibitor with an IC₅₀ of 2.97 μM. DDO-2728 increases the abundance of N6 metladenosine (m6A) modifications, inducing cell apoptosis and cycle arrest. DDO-2728 suppresses tumor growth in the MV4–11 xenograft model with favorable safety profile, shows the potential of targeting ALKBH5 in cancer research.

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

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DDO-2728 (0-40 μ M, 48 h) increases m6A metlation levels in the MOLM-13, HEK293 and MV4-11 cells over a concentration gradient[1]. DDO-2728 (0.01-100 μ M, 72 h) inhibits the proliferation of MOLM-13 and MV4-11 cells with IC50s of 0.45 and 1.2 μ M respectively, and shows a relatively weak toxicity in HEK293 and HUVECs[1]. DDO-2728 (20 μ M, 48 h) significantly arrests the cell cycle of MOLM-13 and MV4-11 cells at the G1/M phase[1]. DDO-2728 (5, 10 μ M, 48 h) concentration-dependently induces cell apoptosis of MV4-11 and MOLM-13 cells[1]. DDO-2728 (20 μ M, 24 h) decreases the half-lives of TACC3 mRNA in MOLM-13 and MV4-11 cells[1]. DDO-2728 (0-10 μ M, 48 h) significantly reduces the abundance of TACC3 and c-Myc in MOLM-13 and MV4-11 cells at both mRNA and protein levels[1].

1.19 Metabolic Stability in Rat and Human Plasma and Liver Microsomes[1]

DDO-2728 (10-40 mg/kg, i.p., daily for 14 d) effectively inhibits tumor growth in MV4-11 xenograft nude mice.[1].

1.19 Pharmacokinetic Parameters of DDO-2728 in Rats[1]

References:

[1]. Zheng-Yu Jiang, et al. Discovery of Pyrazolo[1,5-a]pyrimidine Derivative as a Novel and Selective ALKBH5 Inhibitor for the Treatment of AML. Journal of Medicinal Chemistry. 2023, Article ASAP.

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