

Product Data Sheet

Product Name: TMLB-C16

Cat. No.: GC78958

Chemical Properties

Cas. No. 2923531-50-2

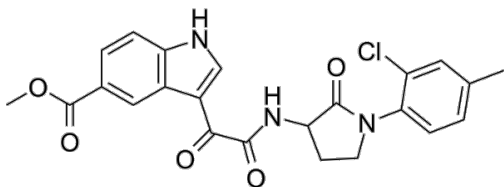
Formula $C_{23}H_{20}ClN_3O_5$ M.Wt 453.88

Solubility DMSO: 31.25 mg/mL (68.85 mM; Storage Store at -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

TMLB-C16 is a potent and orally active B3GAT3 inhibitor with a K_D of 3.962 μ M. TMLB-C16 suppresses proliferation and migration, and induces cell cycle arrest and apoptosis in MHCC-97H (IC_{50} = 6.53 μ M) and HCCLM3 cells (IC_{50} = 6.22 μ M). TMLB-C16 inhibits tumor growth in both MHCC-97H and HCCLM3 xenograft tumor mouse models without causing obvious toxicity. TMLB-

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

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C16 can be used for hepatocellular carcinoma research [1].

In Vivo, TMLB-C16 (5, 10 and 20 mg/kg, i.g., daily from day 7 to day 31) inhibits tumor growth in both MHCC-97H and HCCLM3 xenograft tumor mouse models[1].

In Vitro, TMLB-C16 (72 h) demonstrates broad antitumor activities in 13 B3GAT3 high expressed cancer cell lines (such as NCI-H460, NCI-H1650, and Calu3 cells) in a B3GAT3-dependent manner, with IC₅₀ values below 20 μ M[1]. TMLB-C16 (0-10 μ M, 14 days) prevents colony formation in a dose-dependent manner in MHCC-97H and HCCLM3 cells[1]. TMLB-C16 (0-10 μ M, 24 h) inhibits cell migration and inhibits cell division in MHCC-97H and HCCLM3 cells[1]. TMLB-C16 (0-10 μ M, 48 h) induces G0/G1-phase cell cycle arrest and apoptosis in MHCC-97H and HCCLM3 cells in a dose-dependent manner, accompanied by enhanced p21, p53, and retinoblastoma-associated protein (Rb) levels and decreased CDK6, cyclin E1, and phosphorylated-Rb (p-Rb) levels[1].

References:

[1]. Yin H, et al. Discovery of Novel 2-Oxoacetamide Derivatives as B3GAT3 Inhibitors for the Treatment of Hepatocellular Carcinoma. J Med Chem. 2024 Jul 11;67(13):10743-10773.

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