Data Sheet (Cat.No.T211959)

TargetMol

DHI1

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	DHI1 is an anti-leukemia agent with high selectivity towards Jurkat (IC50= 21.83 μM) and HL-60 (IC50= 19.14 μM) leukemia cells, while exhibiting low toxicity to non-cancerous cells. It induces G2/M cell cycle arrest in both Jurkat and HL-60 leukemia cells and S phase arrest in HL-60 cells, significantly affecting cell cycle signaling molecules such as Wee1, cyclin B1, cdc2 on Tyr15, and Chk1. DHI1 inhibits the migration and invasiveness of Jurkat and HL-60 cells by disrupting the cytoskeletal actin filaments, making it useful for research on hematological malignancies.
Targets(IC50)	CDK,Chk,Wee1
In vitro	DHI1 (Compound 4a) demonstrates inhibitory effects on Jurkat and HL-60 cells with IC50 values of 21.83 μM and 19.14 μM, respectively, over 24-72 hours, while exhibiting weaker inhibition on HCT-116, HeLa, MCF-7, U87, Hep G2, A549, A2780, BJ-5ta, and MCF-10A cells. It induces G2/M phase cell cycle arrest and affects cell cycle-related signaling proteins in Jurkat and HL-60 cells at concentrations of 19.14-21.83 μM over 24-72 hours. Additionally, DHI1 (10-40 μM, 3 hours) reduces the chemotactic and invasive capabilities of Jurkat and HL-60 leukemia cells. It also causes disruption, disorganization, and damage to F-actin structures, along with nuclear fragmentation and membrane blebbing, impacting the cytoskeleton at 19.14-21.83 μM over 24-72 hours. Furthermore, DHI1 (3.125-100 μM, 24 hours) enhances the viability of PBMC cells.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481