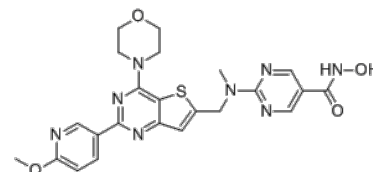


Product Name : CUDC-907
Cat. No. : PC-49141
CAS No. : 1339928-25-4
Molecular Formula : C₂₃H₂₄N₈O₄S
Molecular Weight : 508.557
Target : PI3K
Solubility : 10 mM in DMSO



Biological Activity

Fimepinostat (CUDC-907) is a potent, dual-acting PI3K and HDAC inhibitor, potently inhibits HDAC classes I and II enzymes, inhibits class I PI3K kinases with IC₅₀ of 19, 54, and 39 nM for PI3K α , PI3K β , and PI3K δ , respectively.

CUDC-907 inhibits the PI3K pathway, as indicated by the dose-dependent decreases in phosphorylation of AKT and its downstream targets, 4EBP-1 and p70S6, in H460 cells.

CUDC-907 durably suppresses activation of AKT and modulates receptor tyrosine kinase, RAF-MEK-MAPK and SRC/STAT signaling via HDAC inhibition, downregulates and suppresses the activation of the SRC/STAT signaling pathway and multiple receptor tyrosine kinases.

CUDC-907 induces apoptosis and G2-M cell-cycle arrest in cancer cells, and effectively inhibits cancer cell growth (MOLT4 cell, IC₅₀=1 nM).

CUDC-907 (25, 50, and 100 mg/kg, oral) suppresses tumor growth, inhibits HDAC activity, and blocks signaling of PI3K and MAPK pathways in xenograft models.

CUDC-907 (500 nM) exhibits enhanced adipocytic differentiation in human bone marrow stromal cells (hBMSCs).

References

Qian C, et al. Clin Cancer Res. 2012 Aug 1;18(15):4104-13.

Sun K, et al. Mol Cancer Ther. 2017 Feb;16(2):285-299.

Ali D, et al. Stem Cells Dev. 2017 Mar 1;26(5):353-362.

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

E-mail: tech@probechem.com