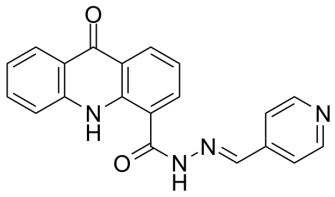
FLT3-IN-13

Cat. No.:	HY-143278
Molecular Formula:	$C_{20}H_{14}N_4O_2$
Molecular Weight:	342.35
Target:	Topoisomerase; FLT3; Apoptosis
Pathway:	Cell Cycle/DNA Damage; Protein Tyrosine Kinase/RTK; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	FLT3-IN-13 (compound 20) is a potent and effective antileukemic topoisomerase II and FLT3 dual inhibitor with IC_{50} values of 2.26 μM and 2.26 μM, respectively. FLT3-IN-13 arrests cell cycle at G2/M phase and induce apoptosis. FLT3-IN-13 has anticytotoxic activity, particularly against leukemia[1].
IC_{50} & Target	IC_{50}: 2.26 μM (TOPO II), 2.26 μM (FLT3)[1]
In Vitro	FLT3-IN-13 (compound 20) has strong antiproliferative activity against HL-60 with an IC_{50} of 0.48 ± 0.08 μM[1]. FLT3-IN-13 arrests HL-60 cell cycle at G2/M phase (G1%: 24.76±1.00, S%: 21.26±1.72, G2%: 32.78±2.21, total apoptosis%: 21.36±2.73)[1]. FLT3-IN-13 induces apoptosis of HL-60 with early-apoptosis of 6.13±1.20% and late-apoptosis of 13.06±0.40%[1]. FLT3-IN-13 significantly upregulates P53, TNFα and caspase 3/7 proteins in the HL-60 cell line, and increases the Bax/Bcl-2 ratio[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Abdelgawad MA, et al. Design, synthesis, and biological evaluation of novel pyrido-dipyrimidines as dual topoisomerase II/FLT3 inhibitors in leukemia cells. Bioorg Chem. 2022 May;122:105752.

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