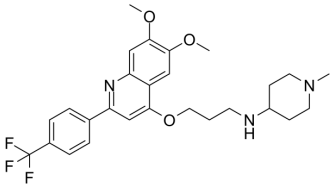
EGFR-IN-46

Cat. No.:	HY-144794
CAS No.:	2764772-88-3
Molecular Formula:	$C_{27}H_{32}F_3N_3O_3$
Molecular Weight:	503.56
Target:	Apoptosis; EGFR; FAK
Pathway:	Apoptosis; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

EGFR-IN-46 is a potent EGFR and FAK dual inhibitor with IC_{50}s of 20.17 nM, 14.25 nM, respectively. EGFR-IN-46 significantly inhibits the growth of cancer cells. EGFR-IN-46 induces cell apoptosis[1].

IC_{50} & Target

EGFR	FAK
20.17 nM (IC_{50})	14.25 nM (IC_{50})

In Vitro

EGFR-IN-46 (compound 6h) (0-100 μM; 24 h) inhibits the growth activity against DLD1, HCT-116 cells with IC_{50}s of 1.79, 3.28 μM, respectively[1].

EGFR-IN-46 (3 μM; 24 h) induces cell apoptosis in DLD1 cells[1].

EGFR-IN-46 exhibits weak TOP1 (Topoisomerase I) poisoning effect (-/+)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	DLD1, HCT-116, MDMBA-231, MCF-7, Hela cells
Concentration:	10 μM
Incubation Time:	24 h
Result:	Showed excellent growth inhibition with the percent growth inhibition of 92.36%, 89.34%, 84.76%, 90.36%, 90.78% for DLD1, HCT-116, MDMBA-231, MCF-7, Hela cells, respectively.

Apoptosis Analysis[1]

Cell Line:	DLD1 cells
Concentration:	3 μM
Incubation Time:	24 h
Result:	Increased the total percentage of apoptotic cells from 7% to 90.33%.

REFERENCES

[1]. Elbadawi MM, et al. 2-Arylquinolines as novel anticancer agents with dual EGFR/FAK kinase inhibitory activity: synthesis, biological evaluation, and molecular modelling insights. J Enzyme Inhib Med Chem. 2022 Dec;37(1):349-372.

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