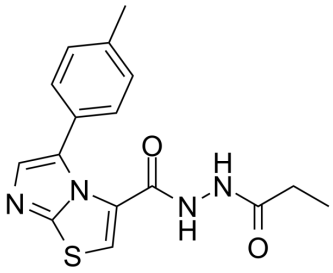
EGFR/HER2-IN-8

Cat. No.:	HY-151161
CAS No.:	2820126-32-5
Molecular Formula:	$C_{16}H_{16}N_4O_2S$
Molecular Weight:	328.39
Target:	EGFR
Pathway:	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/HER2-IN-8 (compound 34) is a EGFR/HER2 and DHFR inhibitor. EGFR/HER2-IN-8 inhibits EGFR kinase, HER2 kinase and DHFR with IC_{50}s of 0.45, 0.244 and 5.669 μM, respectively. EGFR/HER2-IN-8 shows anticancer activity against several cancer cell lines with high safety profile and selectivity indices. EGFR/HER2-IN-8 can be used for the research of cancer[1].
IC_{50} & Target	IC50: 0.45 μM (EGFR kinase), 0.244 μM (HER2 kinase), 5.669 μM (DHFR)[1]
In Vitro	EGFR/HER2-IN-8 (0-100 μM; 72 h) shows highly potent anticancer activity to HepG2, MCF 7, HCT-116, PC-3 and Hela cell lines and exhibits selective cytotoxicity against cancer cell lines rather than normal cell line[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay[1]

Cell Line:	HepG2 hepatocellular carcinoma, MCF 7 breast cancer, HCT-116 colorectal carcinoma, PC-3 prostate, Hea cervical epithelioid carcinoma cell lines and WI-38 fetal lung fibroblast cells
Concentration:	0-100 μM
Incubation Time:	72 hours
Result:	Exibited more potent cytotoxicity than SOR towards HepG2, MCF 7, HCT-116, PC-3 and Hela cell lines with IC_{50}s of 7.34, 5.19, 9.23, 18.5 and 13.02 μM, respectively. Showed weak cytotoxic activity against WI-38 cell line with an IC_{50} value of 67.25 μM, and possessed best selectivity indices towards MCF-7 breast cancer cell line.

REFERENCES

[1]. Sabry MA, et al. New thiazole-based derivatives as EGFR/HER2 and DHFR inhibitors: Synthesis, molecular modeling simulations and anticancer activity. Eur J Med Chem. 2022 Aug 10;241:114661.

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

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