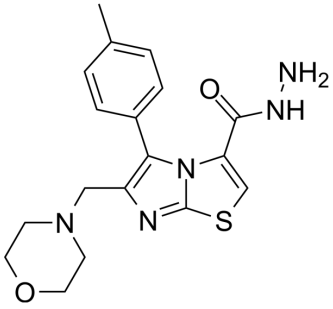
DHFR-IN-4

Cat. No.:	HY-151159
CAS No.:	2820126-49-4
Molecular Formula:	$C_{18}H_{21}N_5O_2S$
Molecular Weight:	371.46
Target:	EGFR; Dihydrofolate reductase (DHFR)
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DHFR-IN-4 is a potent dihydrofolate reductase (DHFR) inhibitor with an IC_{50} value of 123 nM. DHFR-IN-4 also has inhibitory activity against EGFR and HER2 with IC_{50}s of 246 nM and 357 nM, respectively. DHFR-IN-4 has remarkable broad spectrum cytotoxic potency against cancer cells[1].
IC_{50} & Target	IC_{50}: 123 nM (DHFR), 246 nM (EGFR), 357 nM (HER2)[1]
In Vitro	DHFR-IN-4 (compound 42) (0-100 μM; 72 h) shows remarkable broad spectrum cytotoxic potency against HepG2, MCF-7, HCT-116, PC3 and HeLa[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Cytotoxicity Assay[1]

Cell Line:	HepG2, MCF-7, HCT-116, PC3 and HeLa
Concentration:	0-100 μM
Incubation Time:	72 h
Result:	Exhibited antiproliferative activity against HepG2, MCF-7, HCT-116, PC3 and HeLa with IC_{50} s of 9.67±0.7 μM, 8.46±0.7 μM, 13.24±0.9 μM, 11.17±1.0 μM and 6.90±0.5 μM.

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.

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