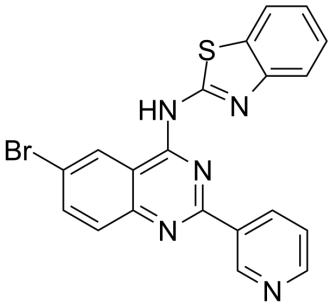
EGFR-IN-63

Cat. No.:	HY-147967
CAS No.:	2414635-72-4
Molecular Formula:	$C_{20}H_{12}BrN_5S$
Molecular Weight:	434.31
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-IN-63 is an EGFR inhibition (IC_{50}: 0.096 μM) and it has anticancer activity in MCF-7 cells (IC_{50}: 2.49 μM).

In Vitro

EGFR- IN-63 (2-4 hours) has superior EGFR inhibition (IC_{50} = 0.096 μM) compared to Gefitinib (IC_{50} = 0.166 μM)and anticancer activity against MCF-7 cell line (IC_{50} = 2.49 μM) compared to Gefitinib (IC_{50} = 4.972 μM). EGFR- IN-63 leads to pre G1 apoptosis with cell growth arrest at G2/M phase in MCF-7 cells after 24 h, the percentage of DNA content (41.45 %) shows increase compared to the control cells (7.1 %). EGFR- IN-63 arrest cell growth at G2/M phase and induces its apoptotic effect. The percentage of the total apoptotic cells in MCF-7 cell line increases after treatment with EGFR- IN-63(24.19 %) relative to control cells (1.47 %)[1].

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

Cell Cytotoxicity Assay

Cell Line:	A549, MCF-7,WI38, PC9 and HCC827 cell lines
Concentration:	10% of the culture medium volume
Incubation Time:	2 - 4 hours
Result:	Displayed superior EGFR inhibitory□anticancer activity and low cytotoxicity.

Cell Cycle Analysis

Cell Line:	MCF-7
Concentration:	0.01 μM
Incubation Time:	24 hour
Result:	Led to pre G1 apoptosis with cell growth arrest at G2/M phase in MCF-7 cells.

Apoptosis Analysis

Cell Line:	MCF-7
Concentration:	0.01 μM
Incubation Time:	24 hour

Result:	Revealed cell growth arrest at G2/M phase and inducted apoptotic effect.

REFERENCES

[1]. Heba Abdelrasheed Allam, et al, Design and Synthesis of some new 2,4,6-trisubstituted quinazoline EGFR inhibitors as targeted anticancer agents, Bioorg Chem. 2020 May;98:103726

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA