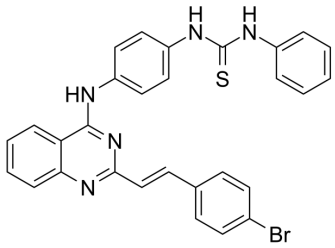
VEGFR-2-IN-11

Cat. No.:	HY-145856
Molecular Formula:	$C_{29}H_{22}BrN_5S$
Molecular Weight:	552.49
Target:	VEGFR; Apoptosis
Pathway:	Protein Tyrosine Kinase/RTK; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	VEGFR-2-IN-11 (Compound 8h) is a potent VEGFR-2 inhibitor with an IC_{50} of 60.27 nM. VEGFR-2-IN-11 shows antitumor activity and induces cell apoptosis[1].
IC_{50} & Target	VEGFR-2 60.27 nM (IC_{50})
In Vitro	VEGFR-2-IN-11 (Compound 8h) (0-100 μM) shows antiproliferation activities against tumor cells and induces a low toxic effect in normal cells[1]. VEGFR-2-IN-11 (4.92 μM, 24h) arrests the cell cycle on MCF-7 at a G1/S phase and induces MCF-7 cell apoptosis[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	HCT-116, HEPG-2, and MCF-7
Concentration:	0-100 μM
Incubation Time:	
Result:	Showed antiproliferation activities with IC_{50} values of 8.62 ± 0.7, 10.18 ± 0.8, and 4.92 ± 0.2 μM against HCT-116, HEPG-2, and MCF-7 cells, respectively.

Cell Cycle Analysis[1]

Cell Line:	MCF-7
Concentration:	4.92 μM
Incubation Time:	24 h
Result:	Resulted in a significant increase in the ratio of MCF-7 cells in the G0/G1 phase from 45.81 % (untreated cells) to 49.18 % and the S phase from 39.14% (untreated cells) to 43.22% with a concomitant decrease in the number of cells in G2/M phase by 7.6% compared to untreated control (15.05%).

Apoptosis Analysis[1]

Cell Line:	MCF-7
Concentration:	4.92 μM
Incubation Time:	24 h
Result:	Induced the early apoptosis in MCF-7 (3.46%) 6.4 folds over the untreated cells (0.54%). Enhanced the late apoptotic induction by 20.72% compared to untreated control (0.18%). Induced total apoptosis with 36.24%.

Cell Cytotoxicity Assay[1]

Cell Line:	WI-38
Concentration:	0-100 μM
Incubation Time:	
Result:	Induced a low toxic effect with an IC_{50} value of 44.45 ± 3.2 μM against WI-38 cells.

REFERENCES

[1]. Abdelrahman Hamdi, et al. Design, synthesis, antitumor, and VEGFR-2 inhibition activities of novel 4-anilino-2-vinyl-quinazolines: Molecular modeling studies. Bioorg Chem. 2022 May;122:105710.

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