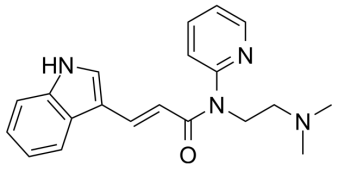
FAK-IN-4

Cat. No.:	HY-146065
CAS No.:	3032200-62-4
Molecular Formula:	$C_{20}H_{22}N_4O$
Molecular Weight:	334.41
Target:	FAK; Apoptosis
Pathway:	Protein Tyrosine Kinase/RTK; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

FAK-IN-4 (Compound 7d) is potential FAK inhibitor with anticancer activities. FAK-IN-4 induces cell apoptosis[1].

In Vitro

FAK-IN-4 (Compound 7d) (0-200 μM, 72 h) shows antiproliferative activity against triple-negative breast cancer (TNBC) cells [1].

FAK-IN-4 (0-20 μM, 24 h) inhibits cell invasion and migration of MDA-MB-231 cells[1].

FAK-IN-4 (0-20 μM, 72 h) causes dose-dependent Y925 dephosphorylation of FAK, and induces apoptosis in MDA-MB-231 cells [1].

FAK-IN-4 inhibits the formation of focal adhesions (FAs) and stress fibers (SFs) in MDA-MB-231 cells[1].

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

Cell Proliferation Assay[1]

Cell Line:	MDA-MB-231, MDA-MB-157, MDA-MB-453 and MCF10A
Concentration:	0.78, 1.56, 3.13, 5, 6.25, 100, 12.5, 25, 50, 100 and 200 μM
Incubation Time:	72 h
Result:	Inhibited the growth of TNBC cells with IC_{50} values of 8.37, 12.09, 9.07 and 40.63 μM against MDA-MB-231, MDA-MB-157, MDA-MB-453 and MCF10A cells.

Cell Invasion Assay[1]

Cell Line:	MDA-MB-231
Concentration:	5, 10 and 20 μM
Incubation Time:	24 h
Result:	Significantly inhibited the invasion of MDA-MB-231 cells in a dose-dependent manner.

Western Blot Analysis[1]

Cell Line:	MDA-MB-231
Concentration:	5, 10 and 20 μM

Incubation Time:	72 h
Result:	Caused an obvious dose-dependent Y925 dephosphorylation of FAK.
Apoptosis Analysis[1]	
Cell Line:	MDA-MB-231
Concentration:	5, 10 and 20 μM
Incubation Time:	72 h
Result:	Increased the percentage of apoptotic MDA-MB-231 cells ranging from 13.10% to 41.59% in a dose-dependent manner.

REFERENCES

[1]. Fei Yang, et al. Discovery of novel chloropyramine-cinnamic acid hybrids as potential FAK inhibitors for intervention of metastatic triple-negative breast cancer. Bioorg Med Chem. 2022 Jul 15;66:116809.

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