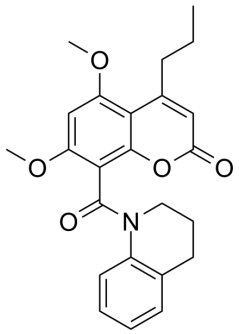
BNS-22

Cat. No.:	HY-122594
CAS No.:	1151668-24-4
Molecular Formula:	$C_{24}H_{25}NO_5$
Molecular Weight:	407.46
Target:	Topoisomerase
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BNS-22 is a DNA topoisomerase II (TOP2) catalytic inhibitor with the IC_{50} values of 2.8 μM and 0.42 μM for human TOP2α and TOP2β, respectively. BNS-22 induces abnormal division and has anti-proliferative activity[1].

IC_{50} & Target	topoisomerase II alpha 2.8 μM (IC_{50}, in human)	topoisomerase II beta 0.42 μM (IC_{50}, in human)

In Vitro

BNS-22 (0-30 μM, 24-48 h) can inhibit cell growth and influence on cell cycle progression of the human cervical epidermoid carcinoma cell line HeLa in a dose-dependent manner[1].

BNS-22 (0-30 μM, 0-6 h) does not induce DNA damage and has an antagonistic effect on TOP2 toxin-mediated DNA damage[1].

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

Cell Proliferation Assay[1]

Cell Line:	HeLa cell lines
Concentration:	0-30 μM
Incubation Time:	24 h, 48 h
Result:	Inhibited cell growth with the IC_{50} value of 4.9 μM after 24 hours and 1.0 μM after 48 hours.

Cell Cycle Analysis[1]

Cell Line:	HeLa cell lines
Concentration:	0-30 μM
Incubation Time:	24 h
Result:	Increased number of cells in G2/M phase. Disrupted mitotic spindle formation and induced polyploid cell formation at 3 μM.

Western Blot Analysis[1]

Cell Line:	HeLa cell lines

Concentration:	0-30 μM
Incubation Time:	0, 30 min, 1 h, 2 h, 4 h, 6 h
Result:	Decreased etoposide-induced γ-H2AX expression and decreased total cellular TOP2β levels, but not TOP2α levels.

REFERENCES

[1]. Makoto Kawatani, et al. Identification of a small-molecule inhibitor of DNA topoisomerase II by proteomic profiling. Chem Biol. 2011 Jun 24;18(6):743-51.

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