PARP-2-IN-2

Cat. No.: HY-151624

CAS No.: 2915651-00-0

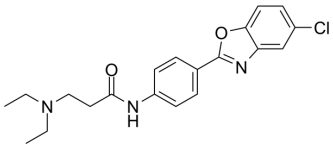
Molecular Formula: $C_{20}H_{22}ClN_3O_2$

Molecular Weight: 371.86

Target: PARP; Apoptosis

Pathway: Cell Cycle/DNA Damage; Epigenetics; Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

PARP-2-IN-2 (compound 27) is a PARP□2 inhibitor with an IC_{50} value of 0.057 μM. PARP-2-IN-2 induces cell cycle arrest and apoptosis of MCF-7 breast cancer cells. PARP-2-IN-2 can be used for the research of cancer[1].

IC_{50} & Target

IC50: 0.057 μM (PARP□2), 11.32 μM (MDA-MB-231 cells), 16.70 μM (MCF-7 cells)[1]

In Vitro

PARP-2-IN-2 (0-1 μM; 1 h) inhibits PARP□2 with an IC_{50} value of 0.057 μM[1].

PARP-2-IN-2 (0-100 μM; 24 h) shows cytotoxicity to MDA-MB-231 and MCF-7 cancer cells[1].

PARP-2-IN-2 (16.7 μM; 24 h) induces cell cycle arrest and apoptosis[1].

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

Cell Cytotoxicity Assay[1]

Cell Line:	MDA-MB-231 and MCF-7 cell lines
Concentration:	0-100 μM
Incubation Time:	24 h
Result:	Showed in vitro cytotoxicity to MDA-MB-231 and MCF-7 cells with IC_{50} values of 11.32 and 16.70 μM, respectively.

Cell Cycle Analysis[1]

Cell Line:	MCF-7 cell line
Concentration:	16.70 μM
Incubation Time:	24 h
Result:	Induced cell cycle arrest at G1/S phase with cells in pre-G1 phase increased from 1.85 to 25.91%.

Apoptosis Analysis[1]

Cell Line:	MCF-7 cell line

Concentration:	16.70 μM
Incubation Time:	24 h
Result:	Induced potent apoptotic and weak necrotic effect in MCF-7 breast cancer cell line.

REFERENCES

[1]. El-Ghobashy NM, et al. Synthesis, biological evaluation, and molecular modeling studies of new benzoxazole derivatives as PARP-2 inhibitors targeting breast cancer. Sci Rep. 2022 Sep 28;12(1):16246.

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