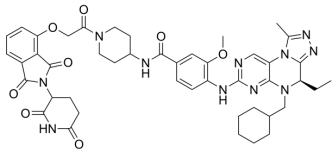
WWL0245

Cat. No.:	HY-153519
CAS No.:	2869057-11-2
Molecular Formula:	$C_{45}H_{51}N_{11}O_8$
Molecular Weight:	873.96
Target:	Epigenetic Reader Domain
Pathway:	Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	WWL0245 is a potent and seletive BRD4 PROTAC. WWL0245 selectively degrades BRD4 with sub-nanomolar DC_{50} (<1 nM) than BRD2/3 and PLK1 (DC_{50}>1 μM). WWL0245 shows excellent selective cytotoxicity in the BETi sensitive cancer cell lines, including AR-positive prostate cancer cell lines. WWL0245 is a promising drug candidate for AR-positive prostate cancer research and a valuable tool compound to study the biological function of BRD4[1].
IC_{50} & Target	BRD4 1 nM (IC_{50})

In Vitro

WWL0245 (0-1 μM; 96h) suppresses the proliferation of AR-positive prostate cancer cells with IC_{50} values range from 0.0159 μM -10 μM. It shows greater antiproliferative activity to AR-positive cell lines VCaP, LNCaP, 22Rv1 with IC_{50} values of 0.016 μM, 0.021 μM, 0.053 μM, respectively[1].

WWL0245 (1 μM; 24 hours) results in the downregulation of BRD4 and c-Myc in a time-dependent manner in LNCaP, 22Rv1, VCaP cell lines and results in the decrease of BRD4 level and c-Myc level in a concentration-dependent manner in 22Rv1 and VCaP cell with DC50 of sub-nanomolar. But WWL0245 could also downregulate BRD4 level in DU145 cells but has negligible effects in c-Myc level[1].

WWL0245 (100 nM-1 μM; 24 hours) suppresses the transcription of AR-regulated genes (PSA, TMPRSS2, ERG, FKBP5, BMPR1B) at various degrees[1].

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

Cell Proliferation Assay[1]

Cell Line:	HL60, SU-DHL-6, RS4;11, JURKAT, A2780, MDA-MB-468, BT549, LNCaP, 22Rv1, and VCaP cells
Concentration:	0 μM -10 μM
Incubation Time:	96 h
Result:	Inhibited HL60, SU-DHL-6, RS4;11, JURKAT, A2780, MDA-MB-468, BT549, LNCaP, 22Rv1, and VCaP growth with IC_{50} values of 0.0961, 0.0734, 0.0247, 0.5018, 0.0153, 0.2460, and 0.1732 μM, respcetively[1].

Western Blot Analysis[1]

Cell Line:	Prostate cancer cell lines: LNCaP, 22Rv1, VCaP, DU145

Concentration:	1 nM, 10 nM, 100 nM, 1000 nM, 10000 nM
Incubation Time:	1 hour, 2 hours, 4 hours,12 hours, 24 hours,48 hours
Result:	Resulted in the downregulation of BRD4 and c-Myc in a time/concentration-dependent manner in 22Rv1 and VCaP cells.

RT-PCR[1]

Cell Line:	Prostate cancer: VCaP cell
Concentration:	100 nM-1 μM
Incubation Time:	24 h
Result:	Suppressed the expression of AR-regulated genes in prostate cancer.

REFERENCES

[1]. Rong Hu, et al. Identification of a selective BRD4 PROTAC with potent antiproliferative effects in AR-positive prostate cancer based on a dual BET/PLK1 inhibitor. Eur J Med Chem. 2022 Jan 5;227:113922.

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