

Table 1-1 Gene information

Target Gene Name	Gene Species	Gene Species	GenBank ID
PRKDC	Human	5591	NM_006904

Table 1-2 sgRNA sequence information

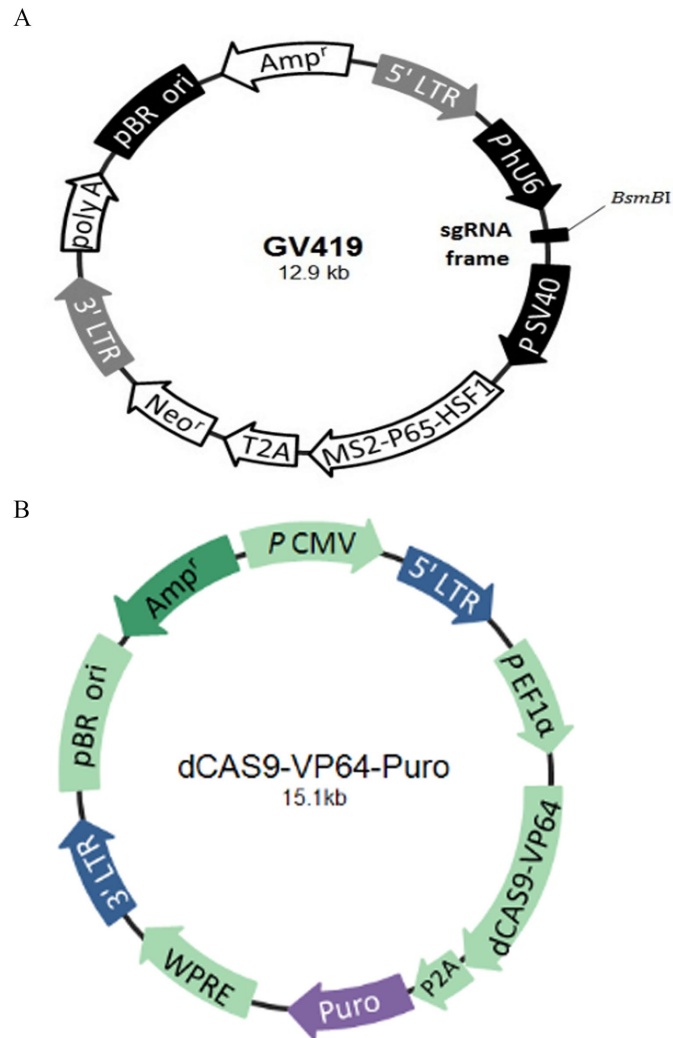
sgRNA Number	sgRNA Sequence
PCA12434	TCTGACCTGCGGAGGTAGTT
PCA12435	CGTAGGGGCATTTCCGGGTC
PCA12436	CTCTTTGGCCCGAATCAACA

Table 1-3 Synthesis oligo information

NO.	5'	STEM	3'
PRKDC-sgRNA A(12434-1)-a	CACCg	TCTGACCTGCGGAGGTAGTT	
PRKDC-sgRNA A(12434-1)-b	aaac	AACTACCTCCGCAGGTCAGA	c
PRKDC-sgRNA A(12435-1)-a	CACCg	CGTAGGGGCATTTCCGGGTC	
PRKDC-sgRNA A(12435-1)-b	aaac	GACCCGGAAATGCCCCTACG	c
PRKDC-sgRNA A(12436-1)-a	CACCg	CTCTTTGGCCCGAATCAACA	
PRKDC-sgRNA A(12436-1)-b	aaac	TGTTGATTCGGGCCAAAGAG	c

Table 1-4 Lentivirus information

Virus Name	Titer(TU/mL)
LV-PRKDC-sgRNA(12434-1)	1.5E+9
LV-PRKDC-sgRNA(12435-1)	1E+9
LV-PRKDC-sgRNA(12436-1)	1E+9

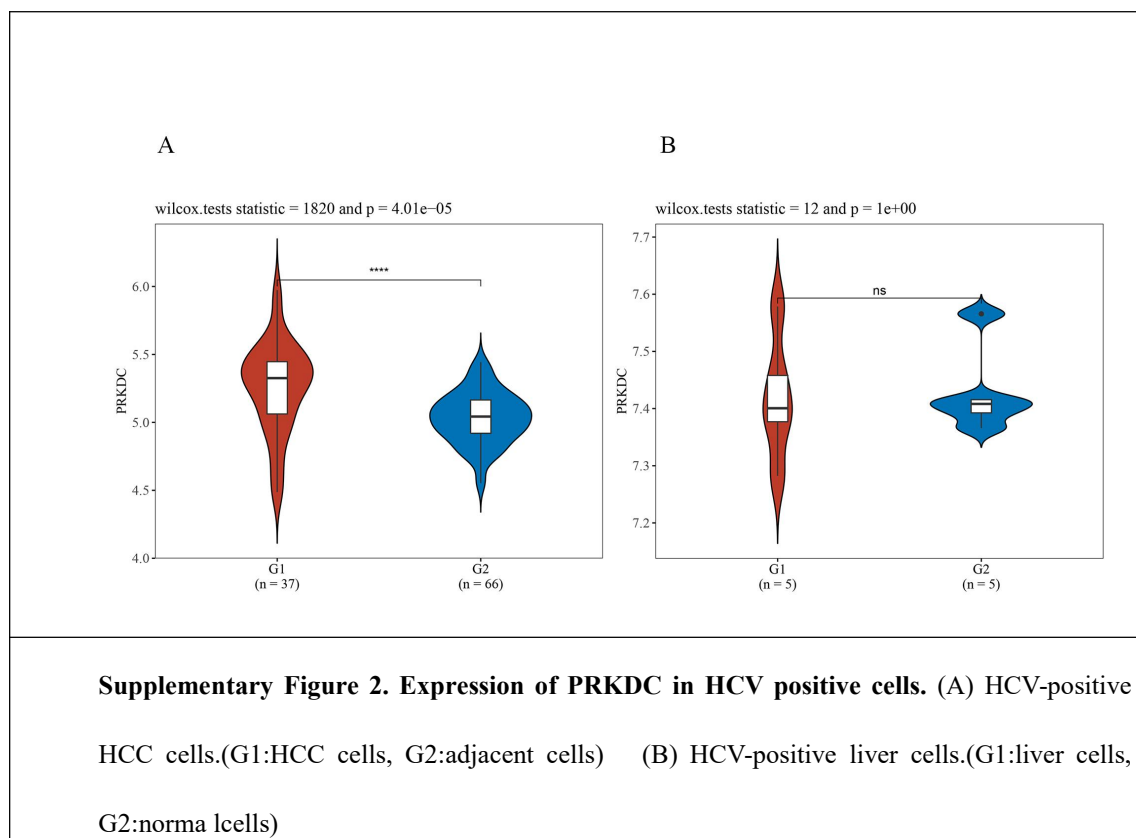


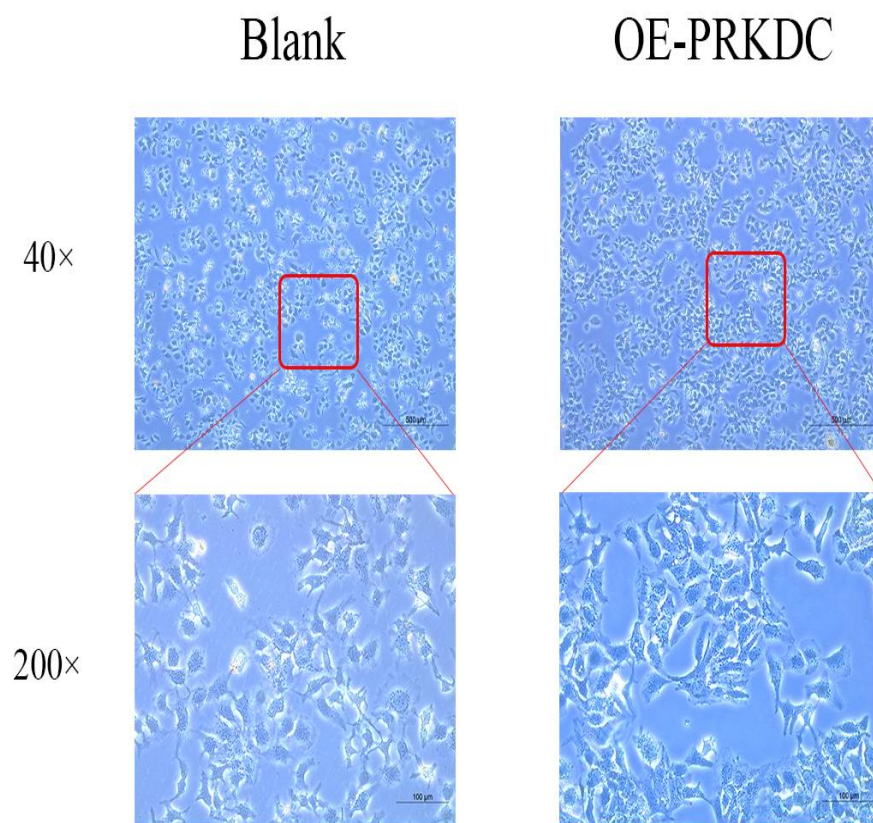
Supplementary Figure 1. Lentiviral vector construction. (A) Diagram of the lentiviral vector.

(B) Diagram of the Lenti- dCAS9-VP64-Puro plasmid vector.

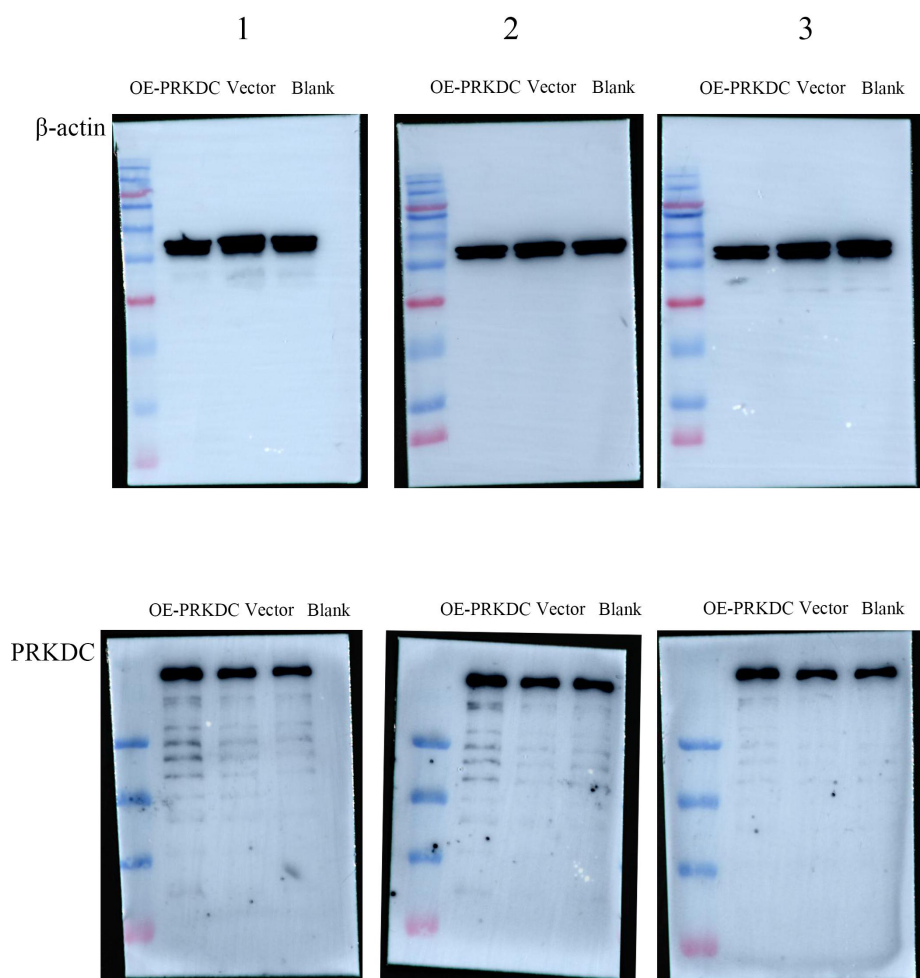
Table 2 Primer sequences

Gene	Forward(5'-3')	Reverse(5'-3')
<i>PRKDC</i>	GCGCCATATCTGTCATCTGCTG	TTATAGCGGCGCTTCAGGTCGA
<i>GAPDH</i>	GTCTCCTCTGACTTCAACAGCG	ACCACCCTGTTGCTGTAGCCAA

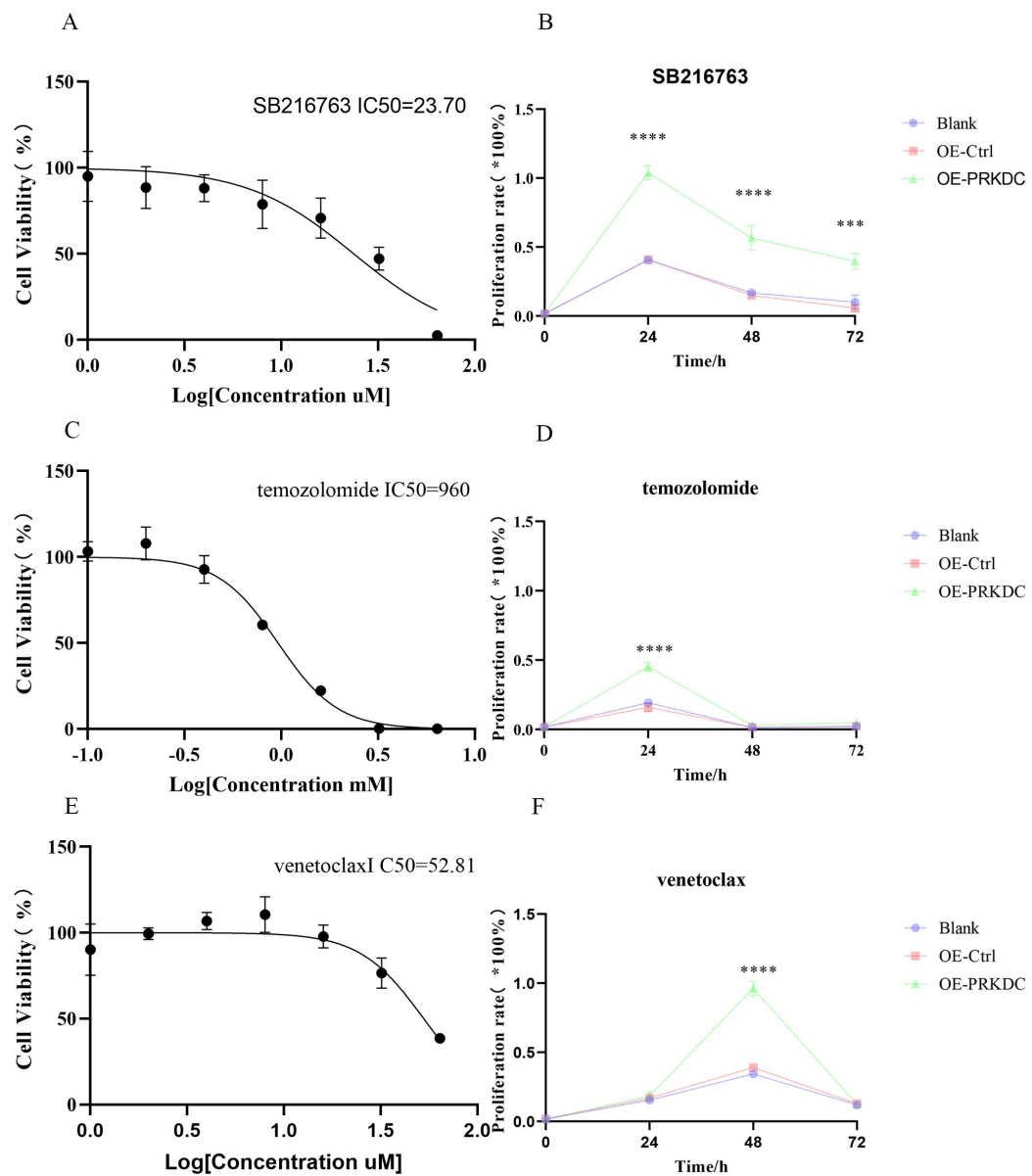




Supplementary Figure 3. Overexpressing *PRKDC* cell line morphology under the microscope.



Supplementary Figure 4. The Western Blot experimental results of overexpressing PRKDC. The experiment was repeated three times.



Supplementary Figure 5. Chemotherapeutic drugs trials. (A) Determination of the IC₅₀ of SB216763. (B) Proliferation inhibition assay of SB216763 on *PRKDC*-overexpressing cells. (C) Determination of the IC₅₀ of temozolomide. (D) Proliferation inhibition assay of temozolomide on *PRKDC*-overexpressing cells. (E) Determination of the IC₅₀ of venetoclax. (F) Proliferation inhibition assay of venetoclax on *PRKDC*-overexpressing cells. *** $p < 0.001$, **** $p < 0.0001$.