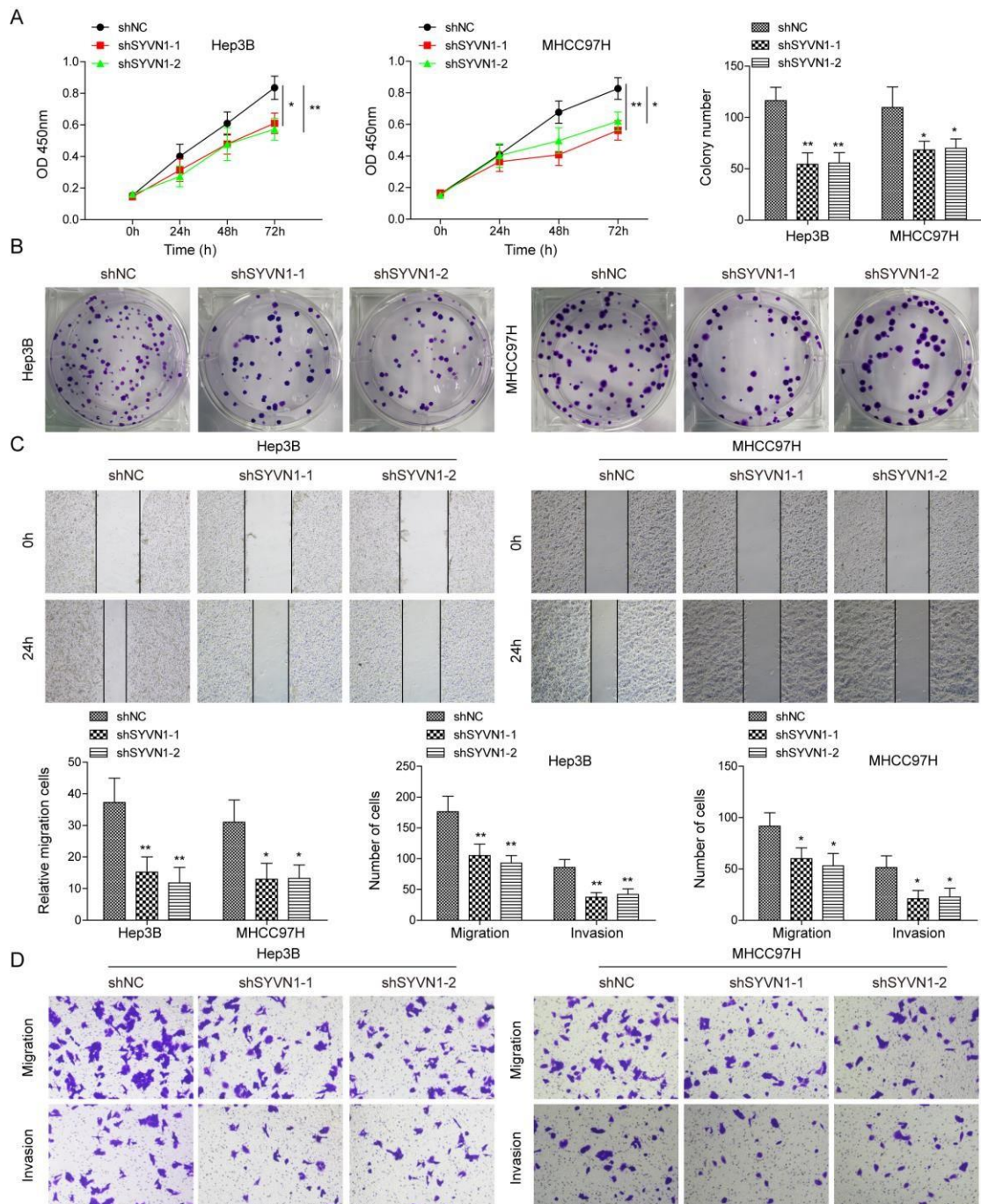
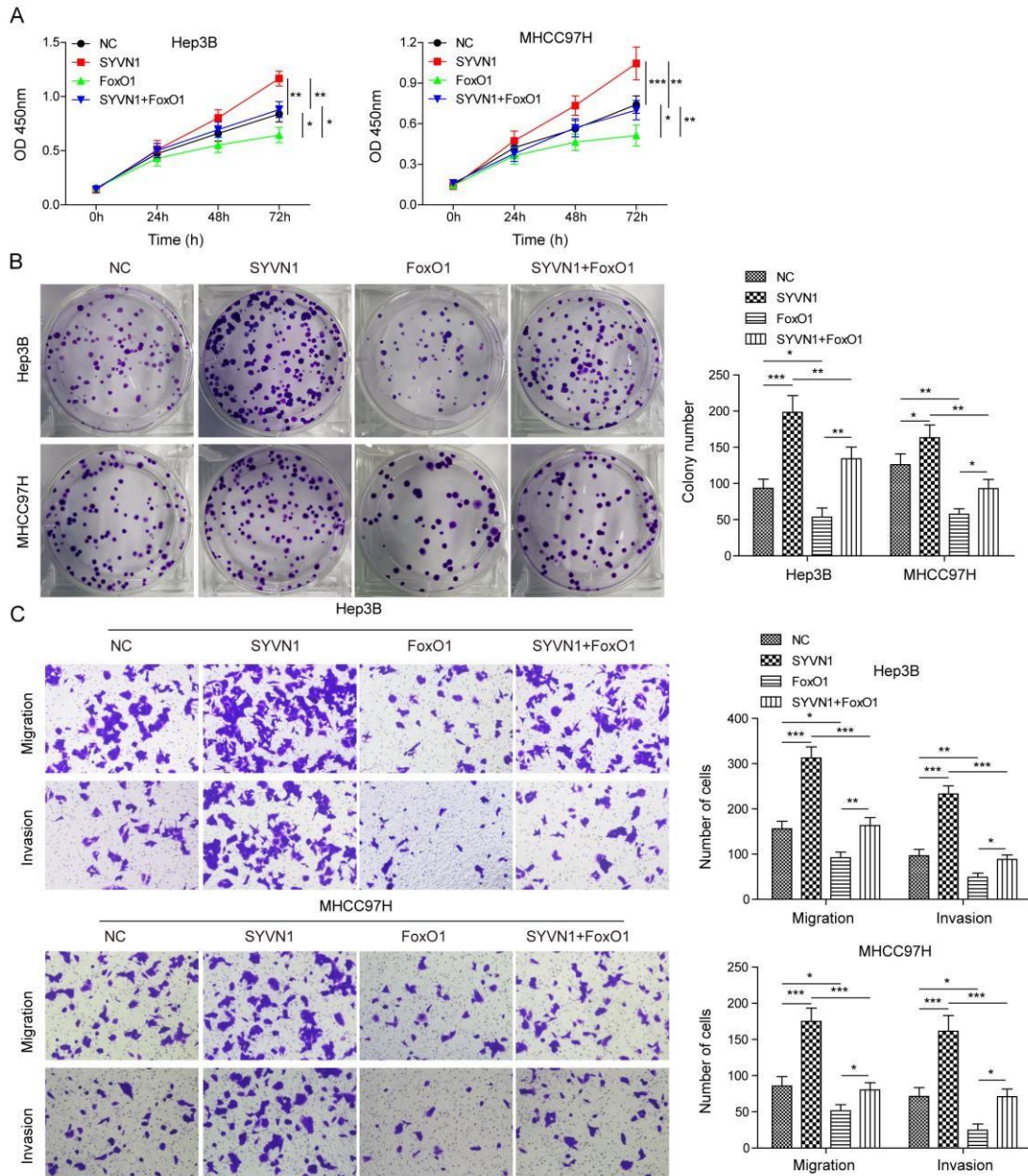
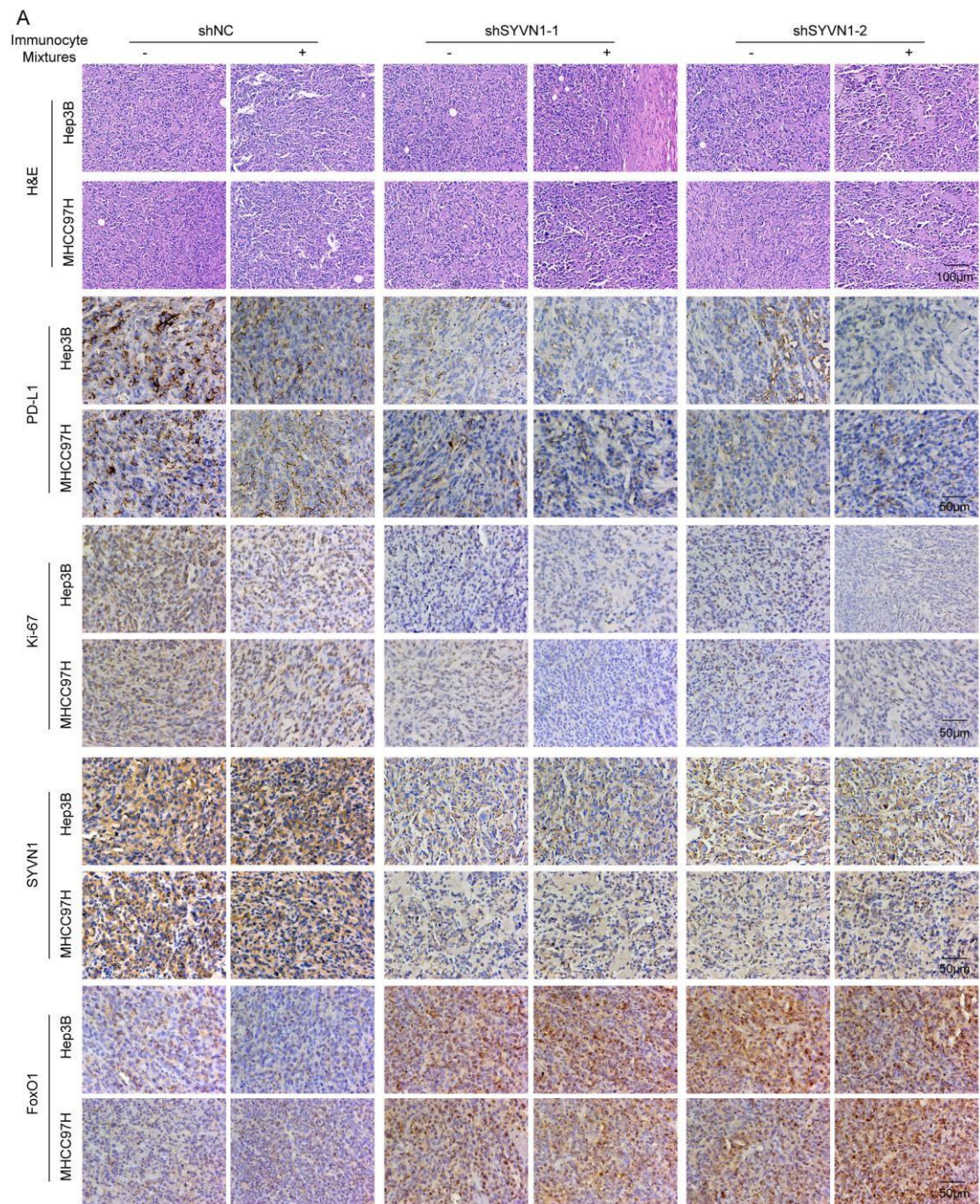


Supplementary materials

1、Figures and Figure legends







Supplementary Figure 3. Silencing of SYVN1 inhibits immune escape of HCC cells *in vivo*. NOD/SCID mice were subcutaneously injected with stably transfected HCC cells to establish xenograft model. (A) Representative images of H&E staining on tumor sections. Scar bar = 100 μ m. Expression of PD-L1, Ki-67, SYVN1 and FoxO1 in tumors was detected by immunohistochemistry staining. Scar bar = 50 μ m.

2、 Supplementary Tables and Table legends

Supplementary Table 1 The primers used in the RT-qPCR.

Primer	Sequence 5'-3'
SYVN1 sense	CTTCGTCAGCCACGCTTATC
SYVN1 anti-sense	CCACGGAGTGCAGCACATAC
FoxO1 sense	CAGCAAATCAAGTTATGGAGGA
FoxO1 anti-sense	TATCATTGTGGGGAGGAGAGTC
GAPDH sense	CGCTCTCTGCTCCTCCTGTTC
GAPDH anti-sense	ATCCGTTGACTCCGACCTTCAC

Supplementary Table 2 Antibodies used in this study.

Antibody	Vendor	Catalog no.	Working dilution
SYVN1	Abcam	ab170901	WB (1:1000); IP (1 µg); IHC (1:100)
PD-L1	Abcam	ab205921	WB (1:1000); IF (1:200); IHC (1:200)
β-catenin	Abcam	ab32572	WB (1:2000); ChIP (1 µg)
FoxO1	Abcam	ab39670	WB (1:1000); ChIP (1 µg); IHC (1:100)
Myc	Abcam	ab32	WB (1:1000)
Flag	Abcam	ab205606	WB (1:2000)
HA	Abcam	ab9110	WB (1:2000)
Ki-67	Abcam	ab15580	IHC (1:200)
β-actin	Abcam	ab8226	WB (1:2000)

Supplementary Table 3 Correlation between SYVN1 and clinicopathological features in 30 HCC patients

Variable	SYVN1		p value
	Low	High	
Age (years)			0.7152
≤50	7	9	
> 50	8	6	
Sex			0.4621
Female	5	8	
Male	10	7	
HBsAg			0.6999
Negative	6	4	
Positive	9	11	
Liver cirrhosis			0.7104
No	8	10	
Yes	7	5	
Serum AFP, ng/mL			0.2635
≤20	11	7	
> 20	4	8	
Serum ALT, U/L			0.2451
≤75	8	12	
> 75	7	3	
Tumor size (diameter, cm)			0.0253*
≤5	10	3	
> 5	5	12	
NK cell proportion in blood			0.0209*
≤8%	6	13	
> 8%	9	2	
Microvascular invasion			0.0142*
No	8	1	
Yes	7	14	
Tumor number			0.4497
Single	4	7	
Multiple	11	8	
TNM			0.4661
I/II	9	6	
III/IV	6	9	