Supplementary Table 1：Primers and oligonucleotides used in this work.

Usage	Primer name	Sequence (5 '–3 ')
RT-qPCR for HBV-miR-3	HBV-miR-3 RT	GTCGTATCCAGTGCAGGGTCCGAGGTGCACTGGATACG ACAAACGCCG
	HBV-miR-3 Forward	TGCGGCTGGATGTGTCTGCGG
RT-qPCR for miR-16	miR-16 RT	GTCGTATCCAGTGCAGGGTCCGAGGTGCACTGGATACG ACCGCCAAT
	miR-16 Forward	TGCGGTAGCAGCACGTAAATA
RT-qPCR for U6 snRNA	U6 RT	GTCGTATCCAGTGCAGGGTCCGAGGTGCACTGGATACG ACAAAATATGG
	U6 Forward	TGCGGGTGCTCGCTTCGGCAGC
	miRNA Reverse primer	CCAGTGCAGGGTCCGAGGT
RT-qPCR for β-actin	β-actin-F	CGTGACATTAAGGAGAAGCTG
	β-actin-R	CTAGAAGCATTTGCGGTGGAC
RT-qPCR for pgRNA/HBV DNA copies	pgRNA-qRT-F	TCTTGCCTTACTTTTGGAAG
	pgRNA-qRT-R	AGTTCTTCTTCTAGGGGACC
RT-qPCR for	total RNA-qRT-F	CTCCCCGTCTGTGCCTTCTC
total RNA		
	total RNA-qRT-R	TCGGTCGTTGACATTGCTGA
RT-qPCR for	cccDNA - qPCR-F	TGCACTTCGCTTCACCT
cccDNA		
	cccDNA - qPCR - R	AGGGGCATTTGGTGGTC
RT-qPCR for	OAS-1-qRT-F	GAAGGCAGCTCACGAAAC
OAS-1		
	OAS-1-qRT-R	TTCTTAAAGCATGGGTAATTC
RT-qPCR for	MX1-qRT-F	CACATGAGCTGGCGGGATT
MX1		
	MX1-qRT-R	AGCGATTCTGAGGGCTGAAA
RT-qPCR for	IFIT2-qRT-F	CGGAAAGCAGAGGAAATCAA
IFIT2		
	IFIT2-qRT-R	TGAAAGTTGCCATACCGAAG
RT-qPCR for	IFIT3-qRT-F	GCCGTTACAGGGAAATACTGG
IFIT3		

	IFIT3-qRT-R	CCTCAACATCGGGGCTCT
RT-qPCR for EGFR	EGFR-qRT-F	GAGACGAGAACTGCCAGAA
	EGFR-qRT-R	GTAGCATTTATGGAGAGTC
RT-qPCR for NOS2	NOS2-qRT-F	TTCAGTATCACAACCTCAGCAAG
	NOS2-qRT-R	TGGACCTGCAAGTTAAAATCCC
RT-qPCR for KLF4	KLF4-qRT-F	CCCACATGAAGCGACTTCCC
	KLF4-qRT-R	CAGGTCCAGGAGATCGTTGAA
RT-qPCR for MCP1	MCP1-qRT-F	CAGCCAGATGCA ATCAATGCC
	MCP1-qRT-R	TGGAATCCTGAACCCACTTCT
RT-qPCR for Arg1	Arg1-qRT-F	CCAGTCCGTCAACATCAAAACT
	Arg1-qRT-R	CCAGTCCGTCAACATCAAAACT
RT-qPCR for CD206	CD206-qRT-F	GGGTTGCTATCAC TCTCTATGC
	CD206-qRT-R	TTTCTTGTCTGTTGCCGTAGTT
RT-qPCR for CXCL10	CXCL10-qRT-F	GAAATTATTCCTGCAAGCCAATTT
	CXCL10-qRT-R	TCACCCTTCTTTTTCATTGTAGCA
RT-qPCR for SOCS5	SOCS5-qRT-F	CCTCCTTCGGCCTTCACCTA
	SOCS5-qRT-R	TATAAAAT CGTGACCAATAGCAGGC
RT-qPCR for IRF3	IFR3-qRT-F	GCTCTCTGACTCTTTCAACCTCTT
	IFR3-qRT-R	AATGCTGCTCTTTTCTCCTCTG
Construction for SOCS5	SOCS5-F	CGCGGATCC ATGGATAAAGTGGGAAAAATG
	SOCS5-R	GCTCACCTCGAGTTTGCCTTGACTGGTTCTCG
Construction for EGFR	EGFR-F	GCGGGTACCATGCGACCCTCCGGGACGGCC
	EGFR-R	GACGACCTCGAGGCTCCAATAAATTCACTGCTTTG

Construction for SOCS5 EGFP reporters	EGFP-SOCS5-S	GATCCCAAAGTGTTTGAGAACTTCATCCAAGCTTG
	EGFP-SOCS5-AS	AATTCAAGCTTGGATGAAGTTCTCAAACACTTTGG
	EGFP-SOCS5-MS	GATCCCAAAGTGTTTGAGAACTTGGAGTAAGCTTG
	EGFP-SOCS5-MA	AATTCAAGCTTACTCCAAGTTCTCAAACACTTTGG
Construction for shR-SOCS5	shR-SOCS5-S	GATCCGGAACAAGACTTGCACGAACTCGAGTTCGTGCA AGTCTTGTTCCTTTTTGA
	shR-SOCS5-AS	AGCTTCAAAAAGGAACAAGACTTGCACGAACTCGAGTT CGTGCAAGTCTTGTTCCG
Construction for shR-EGFR	shR-EGFR-S	GATCCGCCACAAAGCAGTGAATTTATCTCGAGATAAATT CACTGCTTTGTGGCTTTTTGA
	shR-EGFR-AS	AGCTTCAAAAAGCCACAAAGCAGTGAATTTATCTCGAG ATAAATTCACTGCTTTGTGGCG

Supplementary Table 2. Detailed information of patients with hepatitis B included in the study.

Specimen No.	sex	age	phase	Detection date	HBsAg(ng/ml)	HBeAg(ng/ml)	DNA（copies/ml）	ALT(U/L)	AST(U/L)
1	male	26	acute	14.12.11	474.5	23.12	$9.8*10^4$	95	87
2	male	39	acute	15.3.26	328.7	72.33	$2.3*10^3$	35	26
3	male	37	acute	16.10.22	260	0.18	<500	51	39
4	female	44	acute	13.12.26	220.4	0.12	$4.6*10^4$	24	23
5	male	27	acute	16.10.22	315.2	42.46	$2.8*10^3$	40	30
6	female	52	acute	17.7.8	223.7	0.13	$2.3*10^5$	66	33
7	male	33	acute	15.11.15	176.5	0.12	<500	22	23
8	male	28	acute	17.7.23	680.5	0.55	$2.9*10^5$	26	87
9	male	51	acute	16.11.7	15730	155.5	$6.5*10^5$	11	16
10	female	42	acute	17.12.23	649.6	0.07	$7.0*10^4$	21	24
11	male	32	acute	14.6.29	3111	12.19	$1.7*10^4$	12	16
12	male	42	acute	15.11.7	93.67	0.16	$4.5*10^3$	24	23
13	female	35	acute	14.2.25	11786	9	$4.6*10^2$	25	38
14	male	27	acute	17.3.28	1873	13.8	$2.0*10^3$	15	45
15	female	37	acute	14.1.16	294.9	61.67	$1.7*10^4$	11	16
16	male	46	acute	16.2.6	350	87.56	$1.3*10^6$	22	23
17	female	46	acute	13.11.2	463.7	0.33	<500	25	38
18	female	39	acute	15.11.30	461.4	283.6	$1.8*10^6$	35	26
19	male	34	acute	14.1.18	342.2	264.6	$4.9*10^3$	26	19
20	female	42	acute	16.2.14	79.49	0.08	$1.4*10^4$	15	18