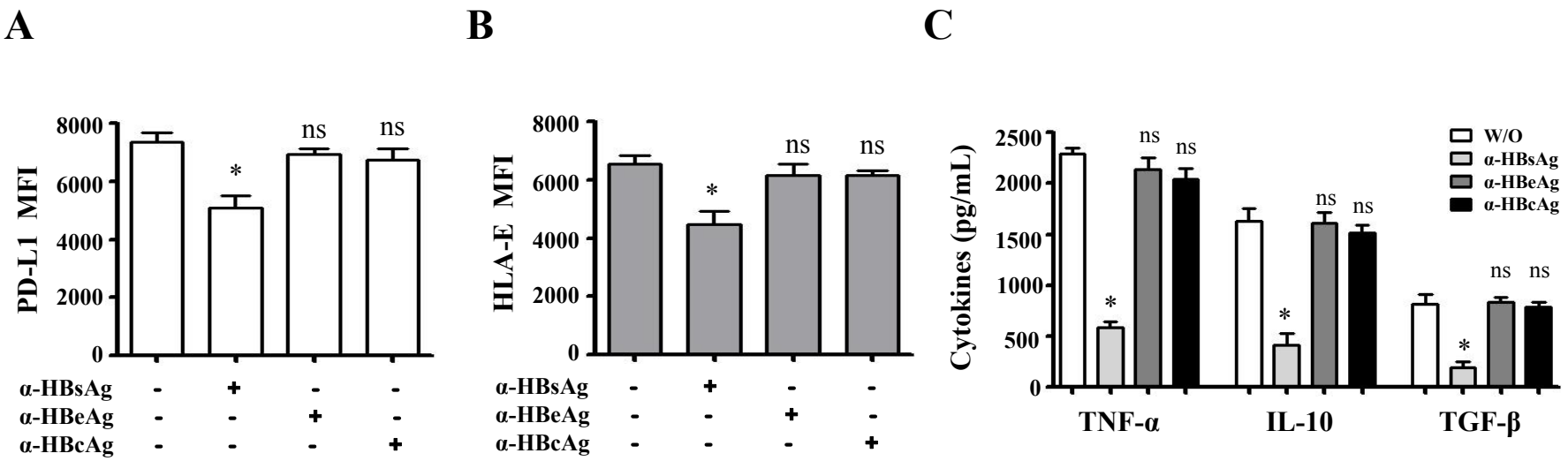
Supplementary Table 1. Characteristics of hepatitis B patients and healthy controls

Clinical data	Chronic HBV infected patients (n=35)	Healthy controls (n=35)
Age (years) (Mean ± SD)	55 ± 20	35 ± 10
Gender(Male/Female)	21/14	20/15
HBeAg (+/–)	35/0	0/35
HBeAb (+/–)	0/35	0/35
HBsAg (μg/mL)	3.86 ± 1.14	_
ALT (IU/L)	28 ± 15	30 ± 12
AST (IU/L)	32 ± 14	24 ± 8
HBV DNA level (lg IU/ml)	8.6 ± 1.3	_

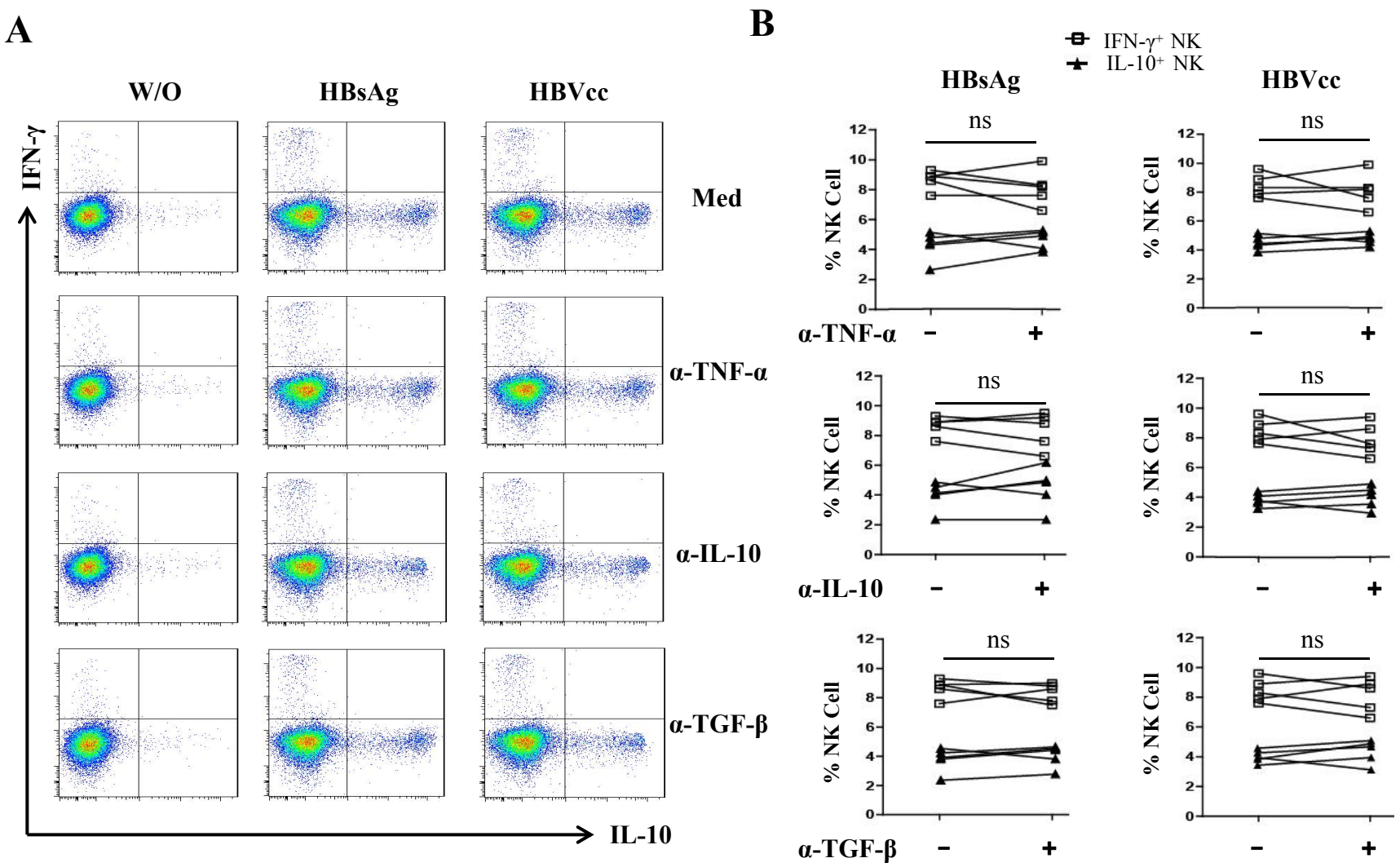
Abbreviations: ----: not applicable; SEM: standard error of mean

Supplementary Table 2：primers sequences for quantitative real-time PCR

genes	Forward primer	Reverse primer
GAPDH	CGGATTTGGTCGTATTGGG	TCTCGCTCCTGGAAGATGG
TNF-α	ATCCTGGGGGACCCAATGTA	AAAAGAAGGCACAGAGGCCA
IL-10	GGCACCCAGTCTGAGAACAG	ACTCTG CTGAAGGCATCTCG
TGF-β	GACTACTACGCCAAGGAGGTC	GAGAGCAACACGGGTTGAG
MyD88	CTGCCTCCTCCTTTCGTTGTAG	GCTCTGCTGGTCCTTCTTAGTC
NFκB1	TGGGCTACACCGAAGCAAT	GGGCCTGAGAGGTGGTCTT
TLR2	ATCCTCCAATCAGGCTTCTCT	GGACAGGTCAAGGCTTTTTACA
TLR3	TTGCCTTGTATCTACTTTTGGGG	TCAACACTGTTATGTTTGTGGGT
iNOS	GAGGAGCAGGTCGAGGACTAT	TCTTCGCCTCGTAAGGAAATAC
Arg1	GTTTCTCAAGCAGACCAGCC	GCTCAAGTGCAGCAAAGAGA
IDO1	CAAATCCACGATCATGTGAACC	AGAACCCTTCATACACCAGAC
IL-12	AACTTGCAGCTGAAGCCATT	AGGGTACTCCCAGCTGACCT
T-bet	GTGACCCAGATGATTGTGCTC	GTAGGCAGTCACGGCAATG
IL-18	GTTGCAGAAAGTGTAAAAATT ATTAC	TAA CCT CAT TCA GGA CTT CC



Supplementary Figure 1: HBV induce immunosuppressive monocytes by employing HBsAg, not HBeAg and HBcAg. Purified monocytes from healthy donors (n= 5) were stimulated with HBVcc for 24 hours in the presence of HBsAb, HBeAb or HBcAb respectively. HBsAb, but not HBeAb or HBcAb inhibited HBV-induced PD-L1 (A) and HLA-E (B) expression, and cytokines secretion (C). The error bars represent standard error of the mean. * $p<0.05$, ns: no significance.



Supplementary Figure 2: Neutralization of IL-10, TNF-α and TGF-β had no significant effect on NK cell activation via HBV-treated monocytes. Purified monocytes and NK cells were co-cultured for 24 hours with HBsAg (10μg/mL) or HBVcc (10^7copies/mL) in presence of IL-10, TNF-α and TGF-β antibodies. NK cells were identified by CD3 and CD56 staining, and the expression of IL-10 and IFN-γ were examined by intracellular cytokine staining. (A) A representative of five independent experiments is shown. (B) Statistical analysis for the expression of IL-10 and IFN-γ on NK cells. ns: no significance.