Figure 1

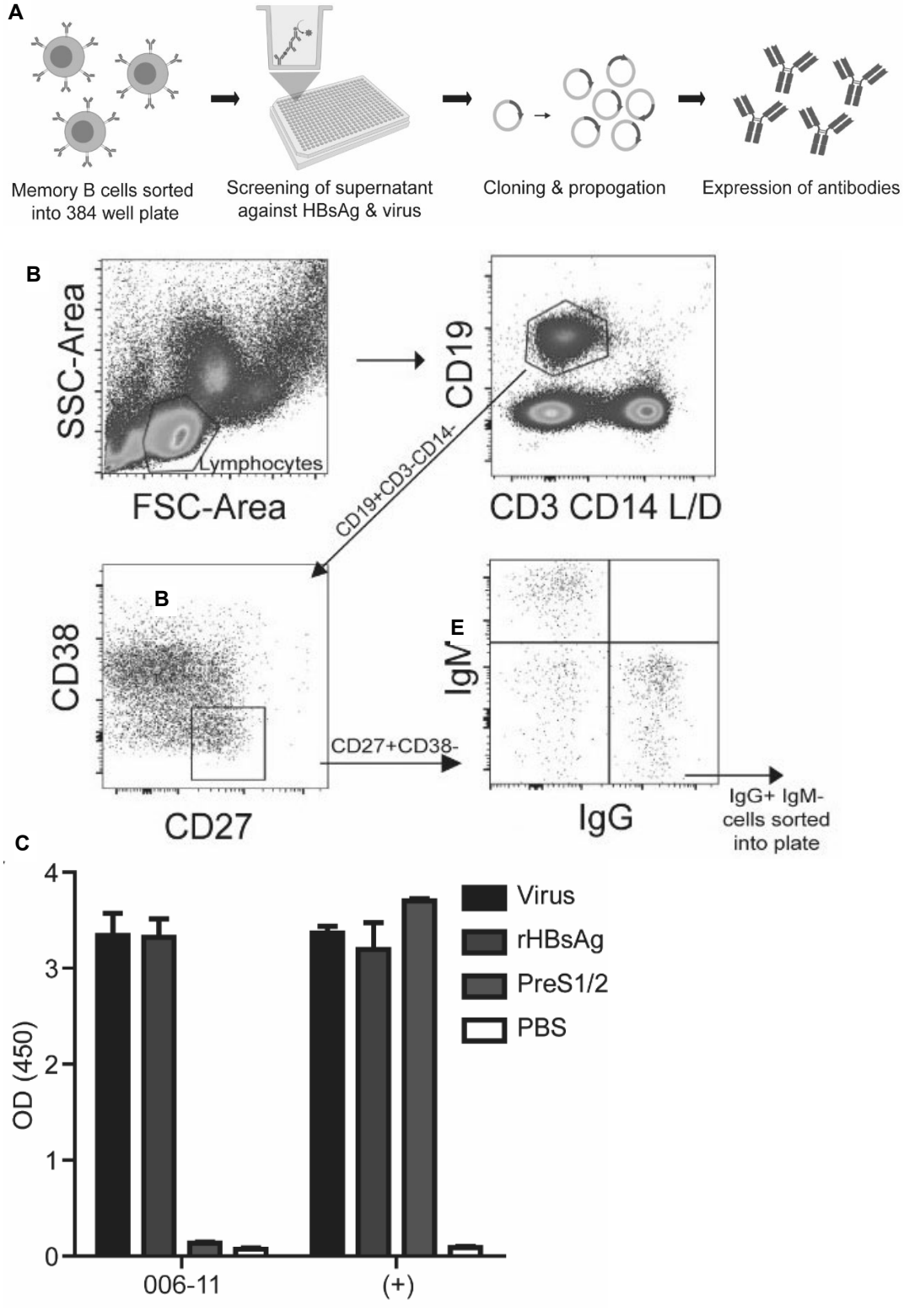

A
Memory B cells sorted into 384 well plate
Screening of supernatant against HBsAg & virus
Cloning & propogation
Expression of antibodies
B
SSC-Area
FSC-Area
Lymphocytes
CD19
CD3 CD14 L/D
CD19+CD3-CD14-
B
CD38
CD27
CD27+CD38-
IgM
E
IgG
IgG+ IgM- cells sorted into plate
C
OD (450)
Virus
rHBsAg
PreS1/2
PBS
006-11
(+)

Figure 1 (continued)

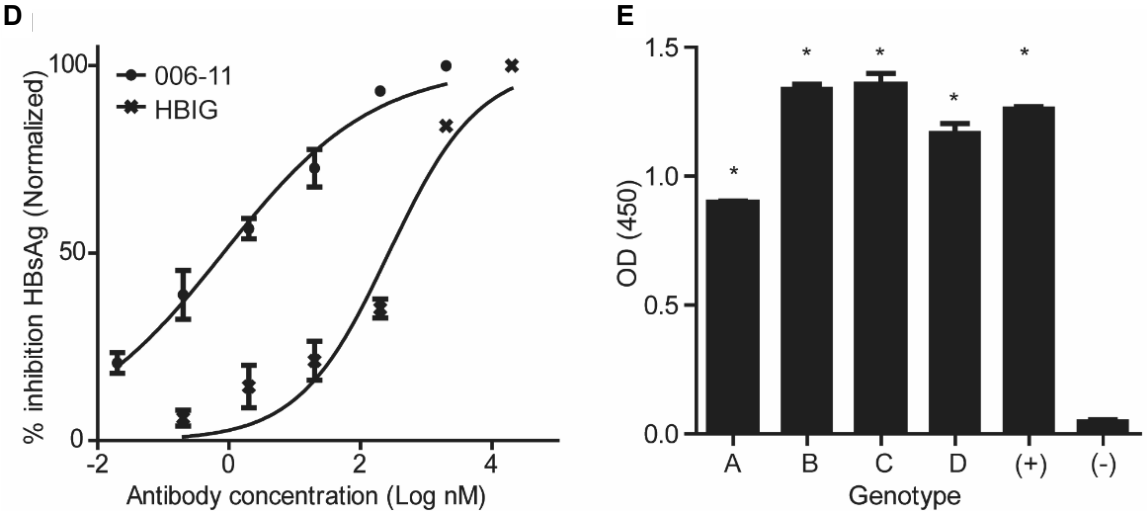


Figure 2

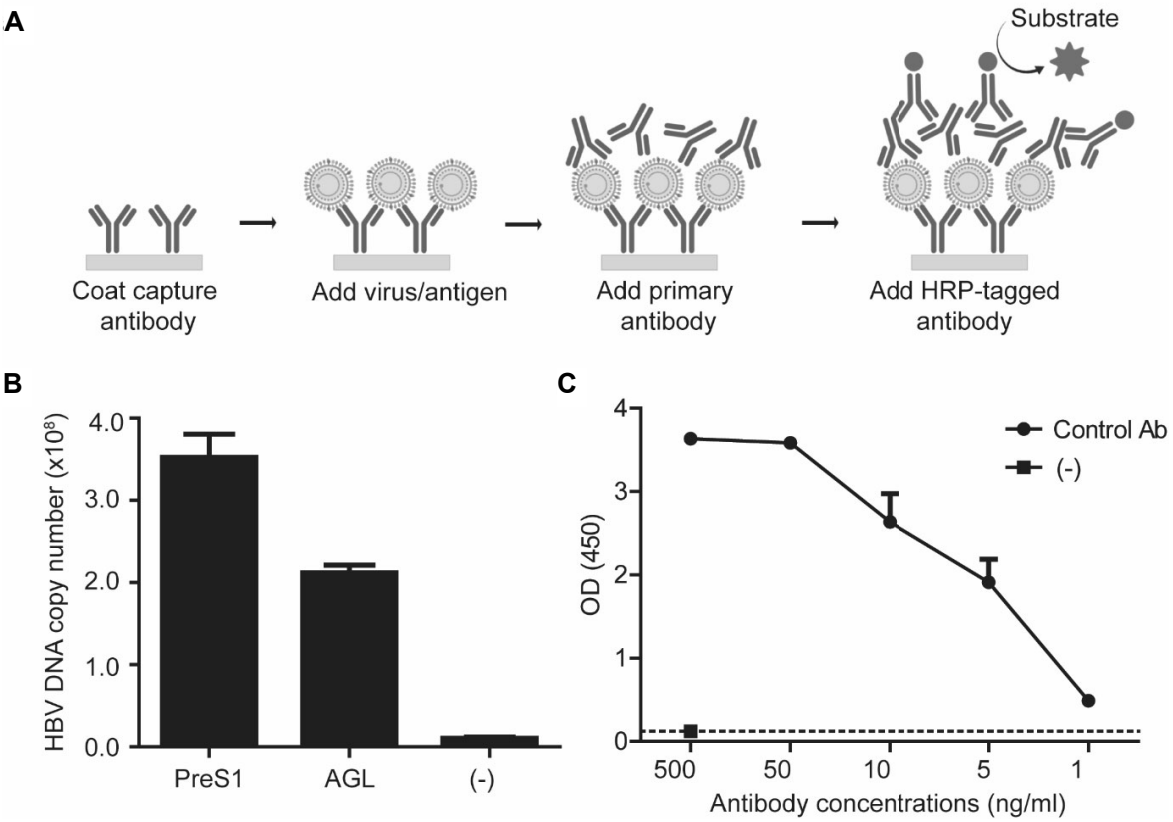


Figure 3

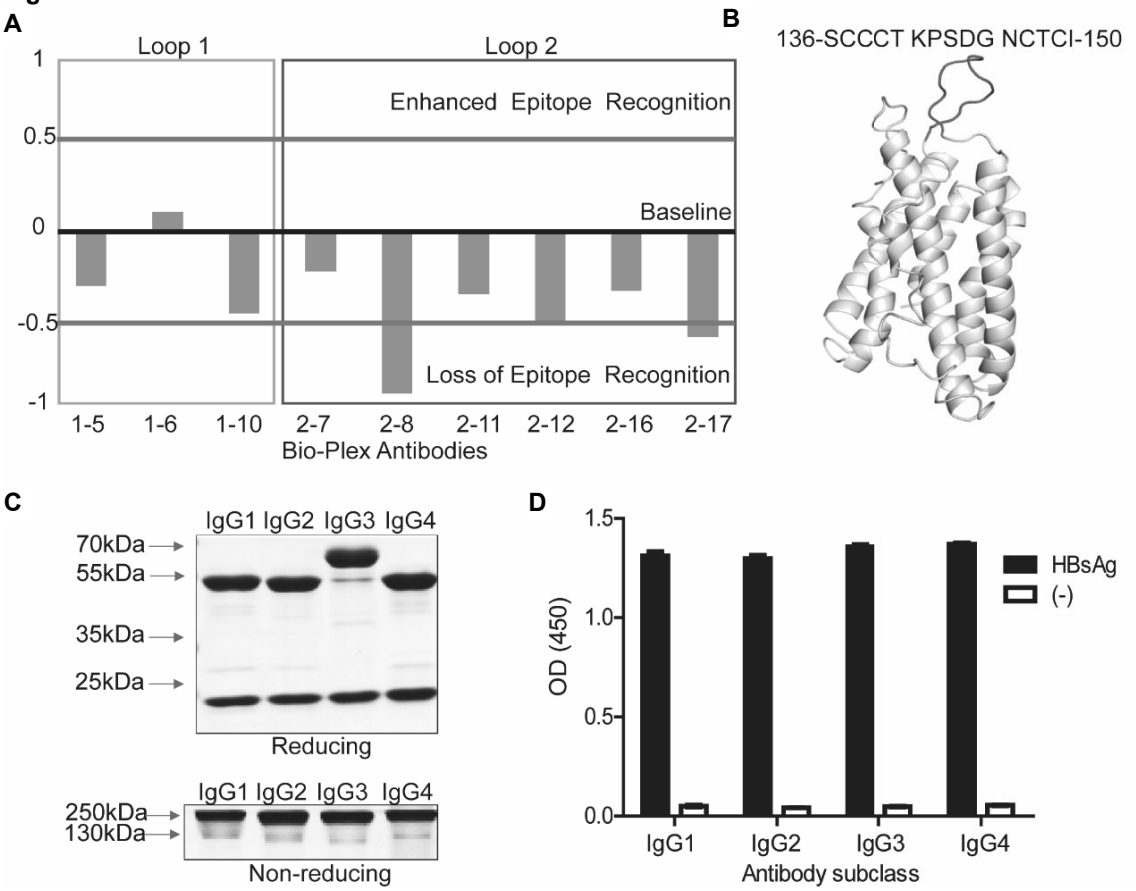

A
Loop 1
Loop 2
Enhanced Epitope Recognition
Baseline
Loss of Epitope Recognition
1
0.5
0
-0.5
-1
1-5
1-6
1-10
2-7
2-8
2-11
2-12
2-16
2-17
Bio-Plex Antibodies
B
136-SCCCT KPSDG NCTCI-150
C
IgG1 IgG2 IgG3 IgG4
70kDa
55kDa
35kDa
25kDa
Reducing
IgG1 IgG2 IgG3 IgG4
250kDa
130kDa
Non-reducing
D
OD (450)
1.5
1.0
0.5
0.0
HBsAg
(-)
IgG1
IgG2
IgG3
IgG4
Antibody subclass

Figure 3 (continued)

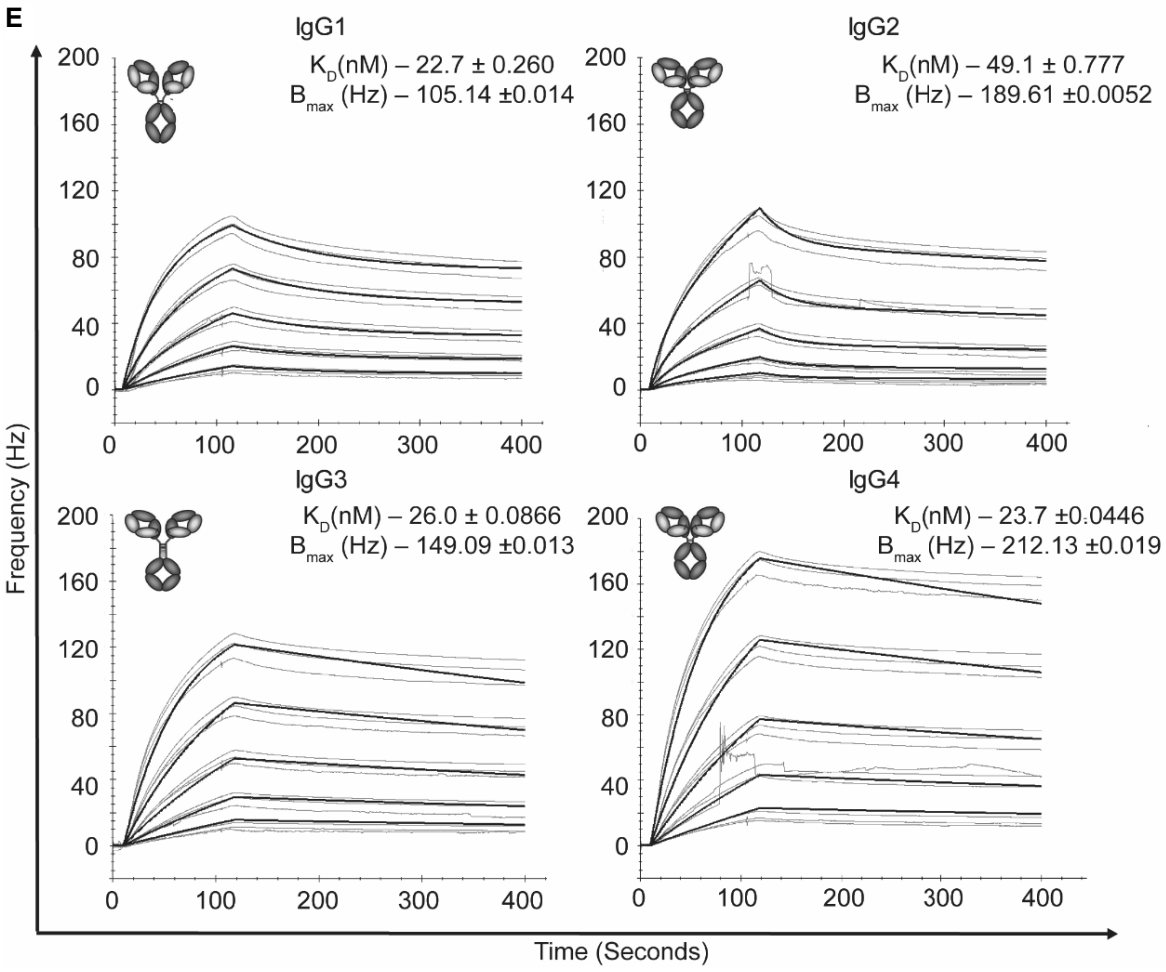


Figure 4

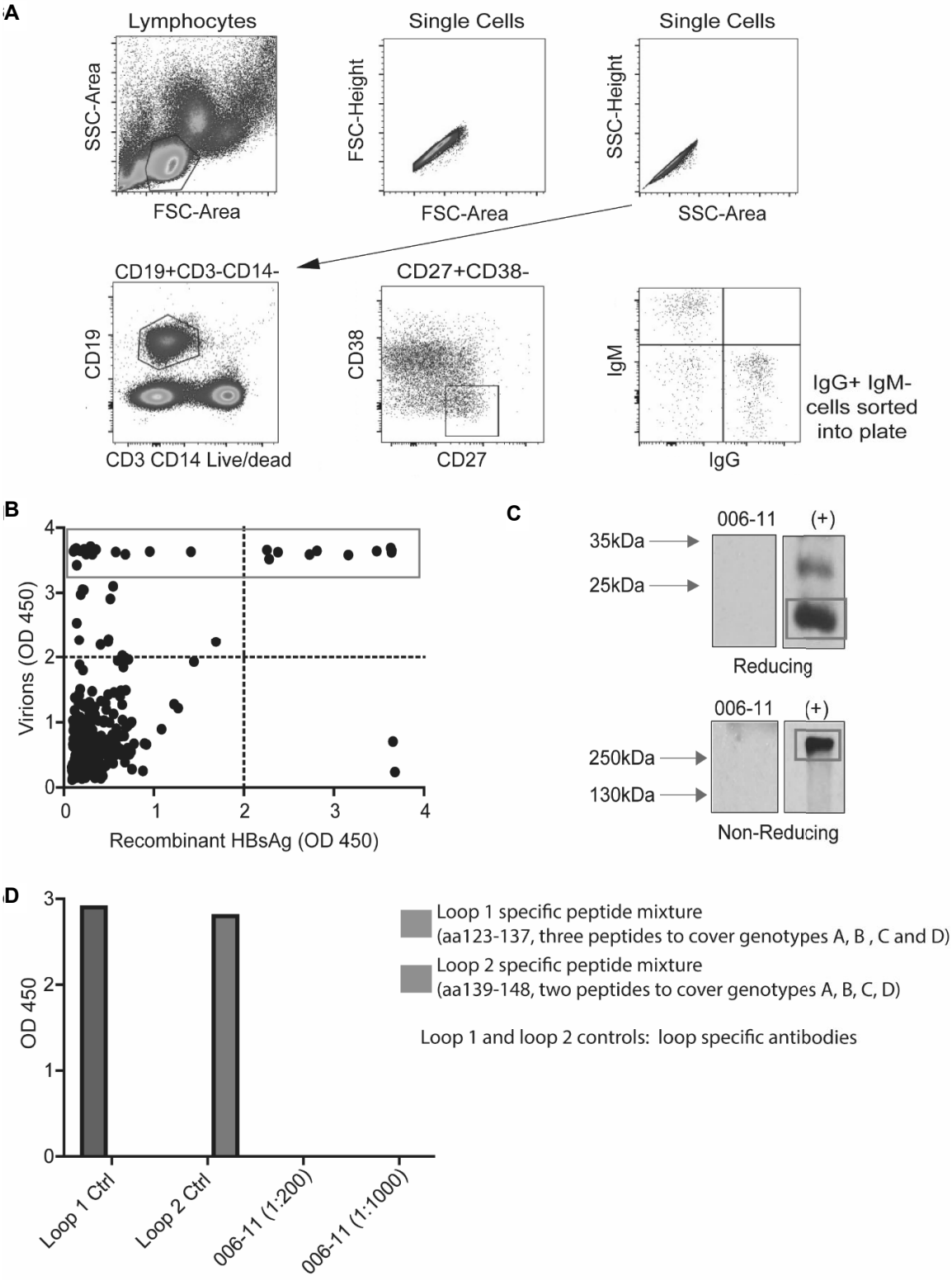

A
Lymphocytes
SSC-Area
FSC-Area
Single Cells
FSC-Height
FSC-Area
Single Cells
SSC-Height
SSC-Area
CD19+CD3-CD14-
CD19
CD3 CD14 Live/dead
CD27+CD38-
CD38
CD27
IgM
IgG
IgG+ IgM-
cells sorted
into plate
B
Virions (OD 450)
Recombinant HBsAg (OD 450)
C
006-11
(+)
35kDa
25kDa
Reducing
006-11
(+)
250kDa
130kDa
Non-Reducing
D
OD 450
Loop 1 Ctrl
Loop 2 Ctrl
006-11 (1:200)
006-11 (1:1000)
Loop 1 specific peptide mixture
(aa123-137, three peptides to cover genotypes A, B , C and D)
Loop 2 specific peptide mixture
(aa139-148, two peptides to cover genotypes A, B, C, D)
Loop 1 and loop 2 controls: loop specific antibodies

Figure 5

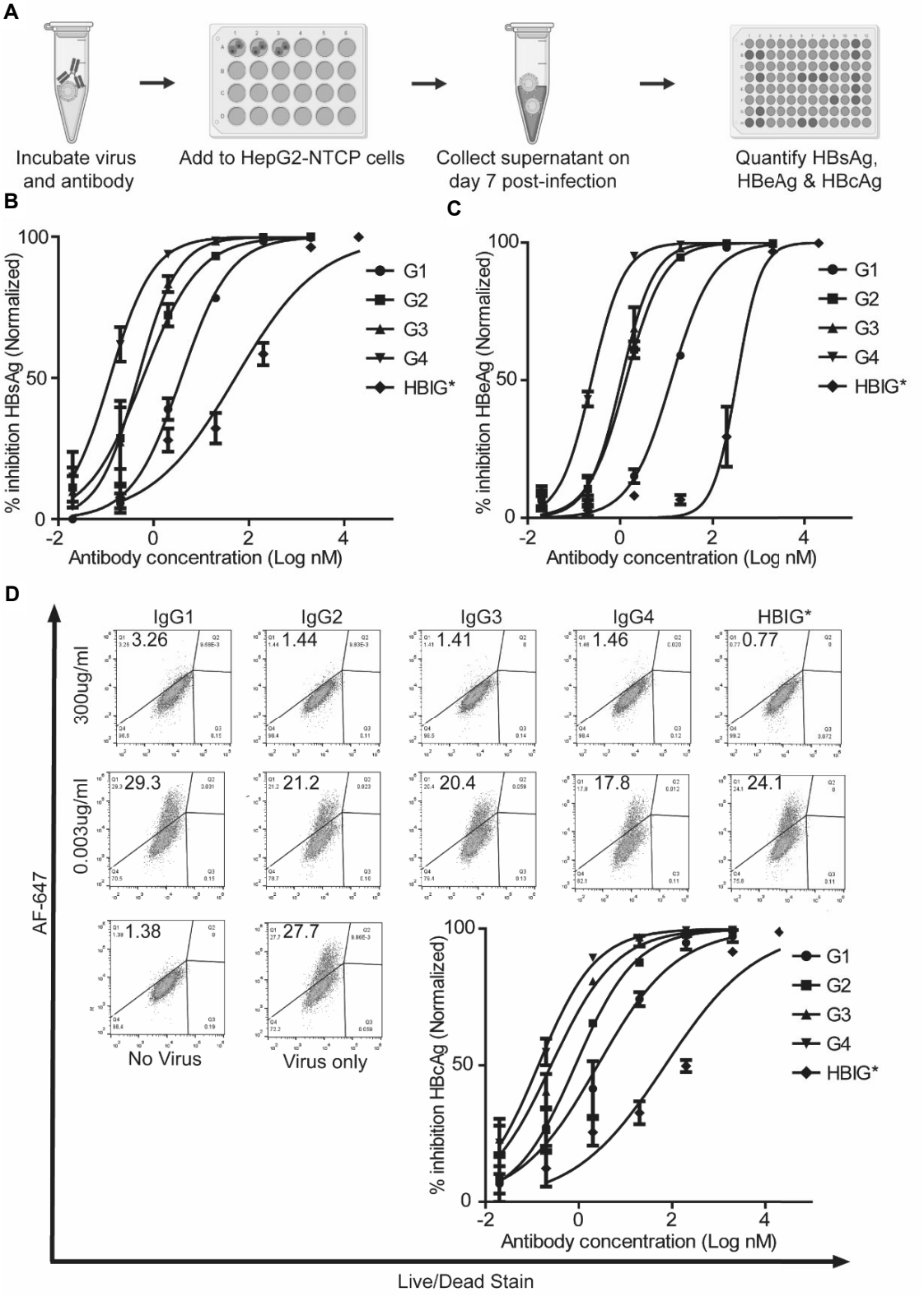

A
Incubate virus and antibody
Add to HepG2-NTCP cells
Collect supernatant on day 7 post-infection
Quantify HBsAg, HBeAg & HBcAg
B
% inhibition HBsAg (Normalized)
Antibody concentration (Log nM)
G1
G2
G3
G4
HBIG*
C
% inhibition HBeAg (Normalized)
Antibody concentration (Log nM)
D
IgG1
IgG2
IgG3
IgG4
HBIG*
300ug/ml
0.003ug/ml
3.26
1.44
1.41
1.46
0.77
29.3
21.2
20.4
17.8
24.1
1.38
27.7
No Virus
Virus only
AF-647
Live/Dead Stain
% inhibition HBcAg (Normalized)
Antibody concentration (Log nM)

Figure 6
A

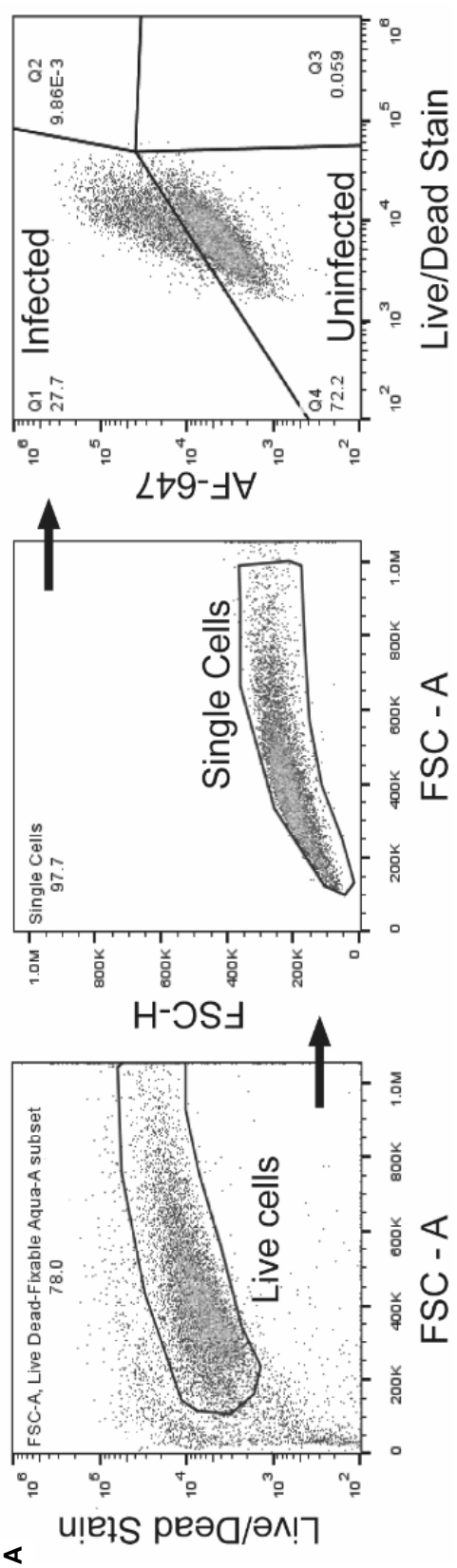

FSC-A, Live Dead-Fixable Aqua-A subset
78.0
Live cells
Live/Dead Stain
FSC - A
Single Cells
97.7
Single Cells
FSC-H
FSC - A
Q1
27.7
Q2
9.86E-3
Q3
0.059
Q4
72.2
Infected
Uninfected
AF-647
Live/Dead Stain

Figure 6 (continued)

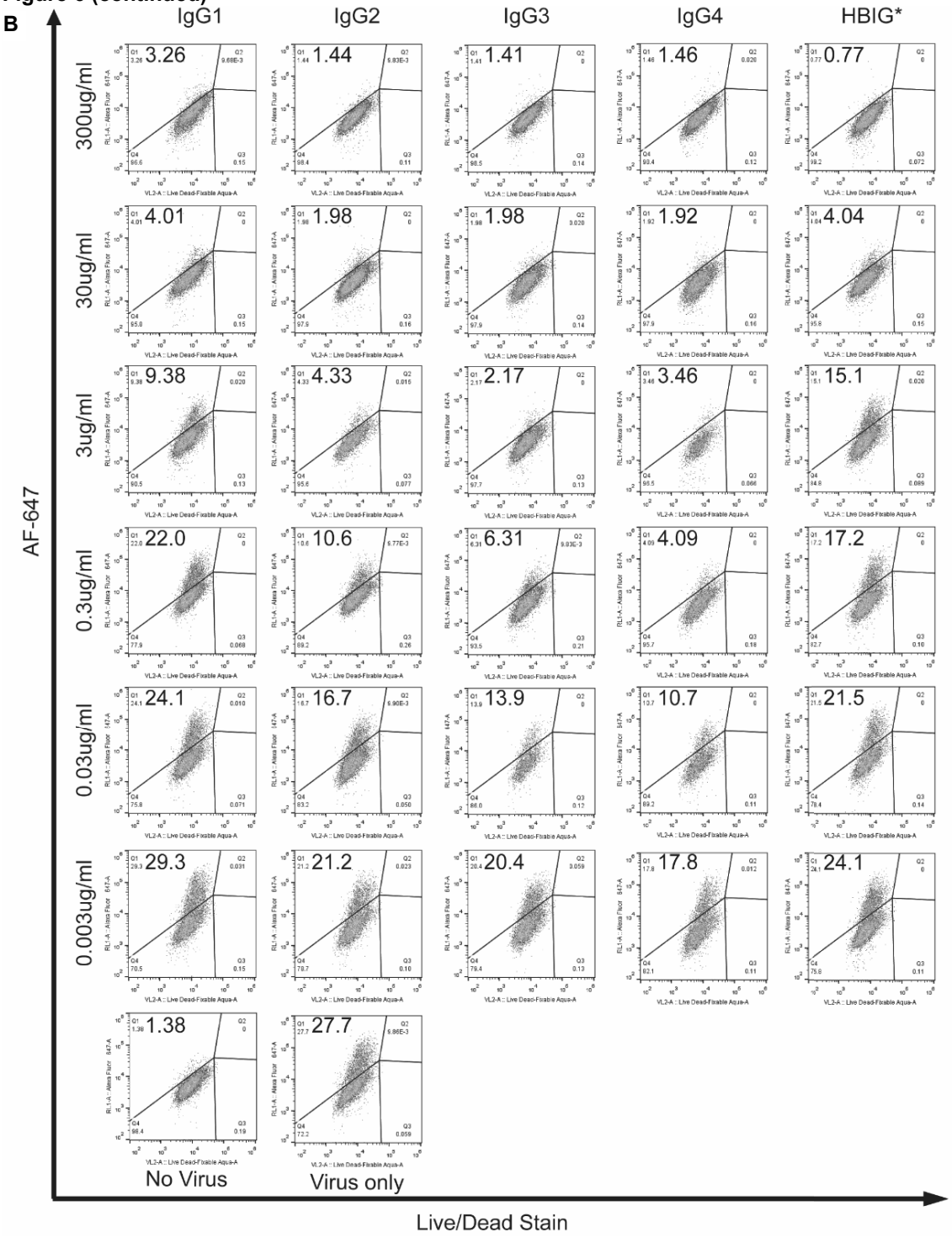


Figure 7

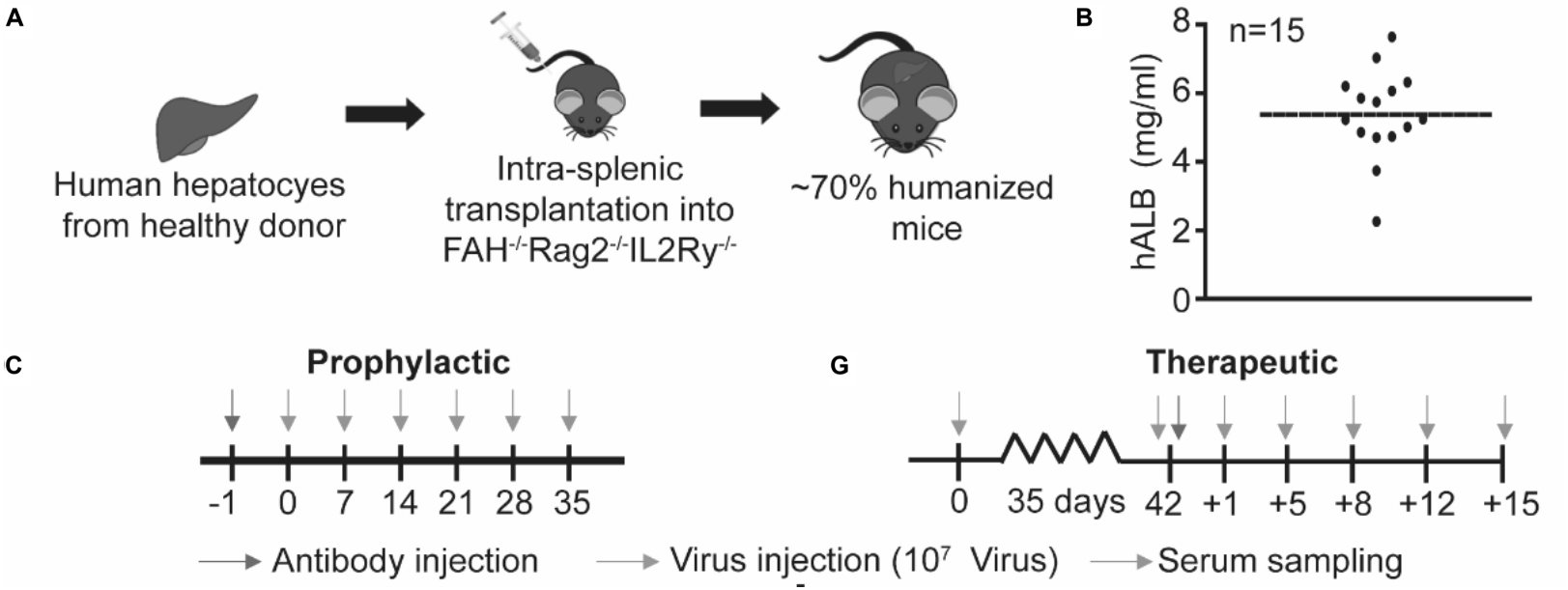

A
Human hepatocyes from healthy donor
Intra-splenic transplantation into FAH-/-Rag2-/-IL2Ry-/-
~70% humanized mice
B
n=15
hALB (mg/ml)
8
6
4
2
0
C
Prophylactic
-1 0 7 14 21 28 35
G
Therapeutic
0 35 days 42 +1 +5 +8 +12 +15
Antibody injection
Virus injection (10^7 Virus)
Serum sampling

Figure 7 (continued)

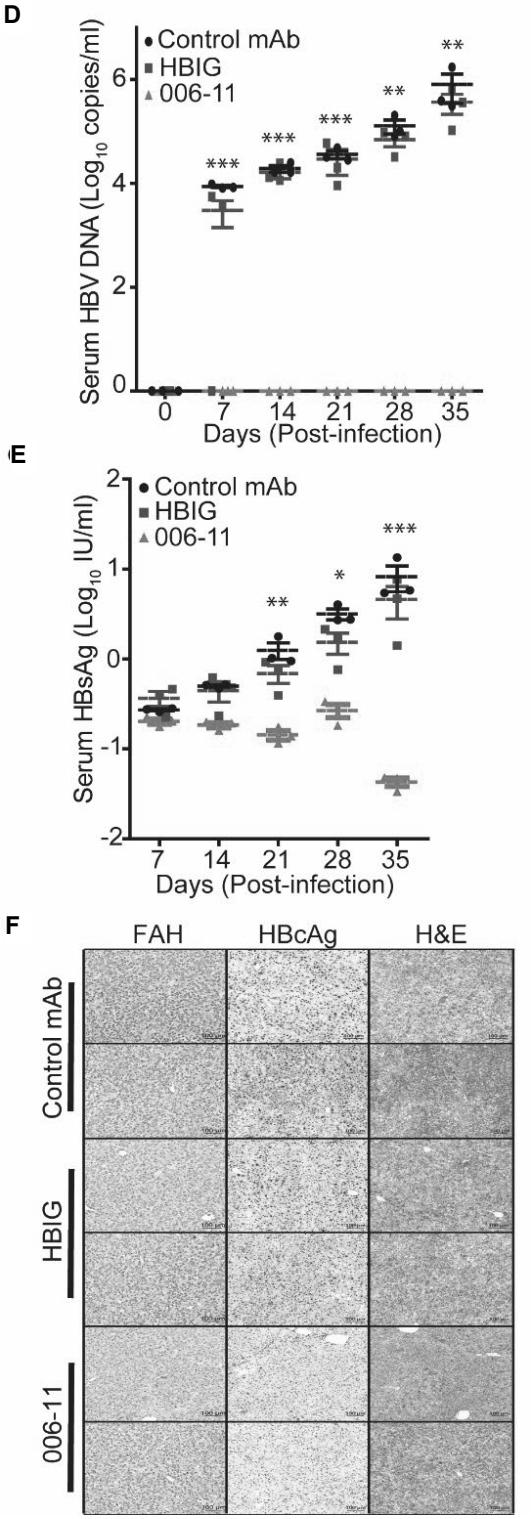
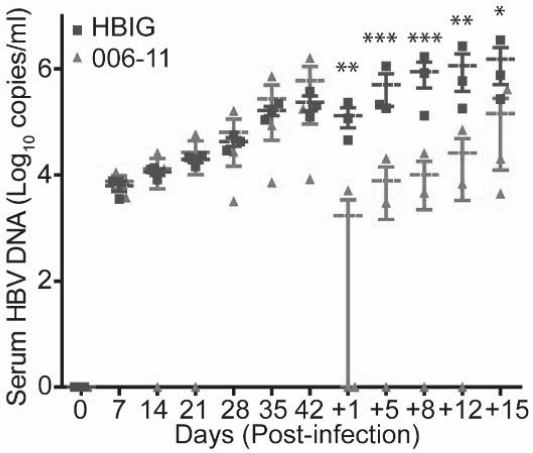
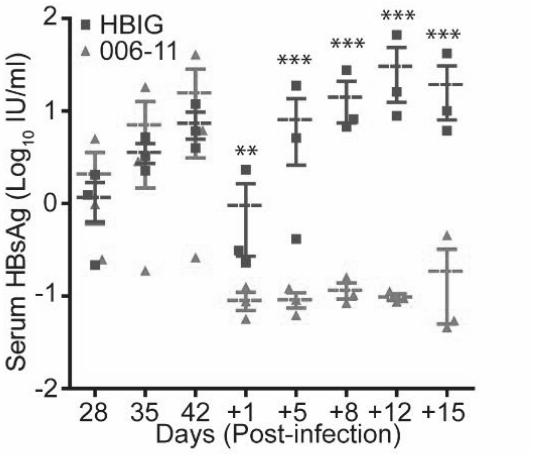


Figure 7 (continued)

H



I



J

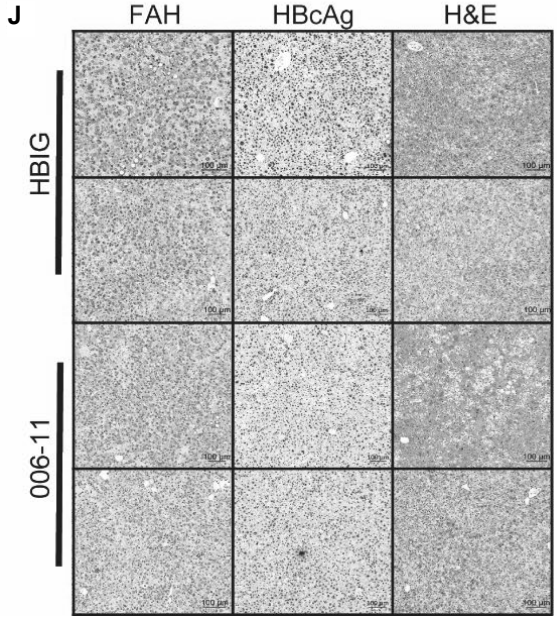


Figure 8

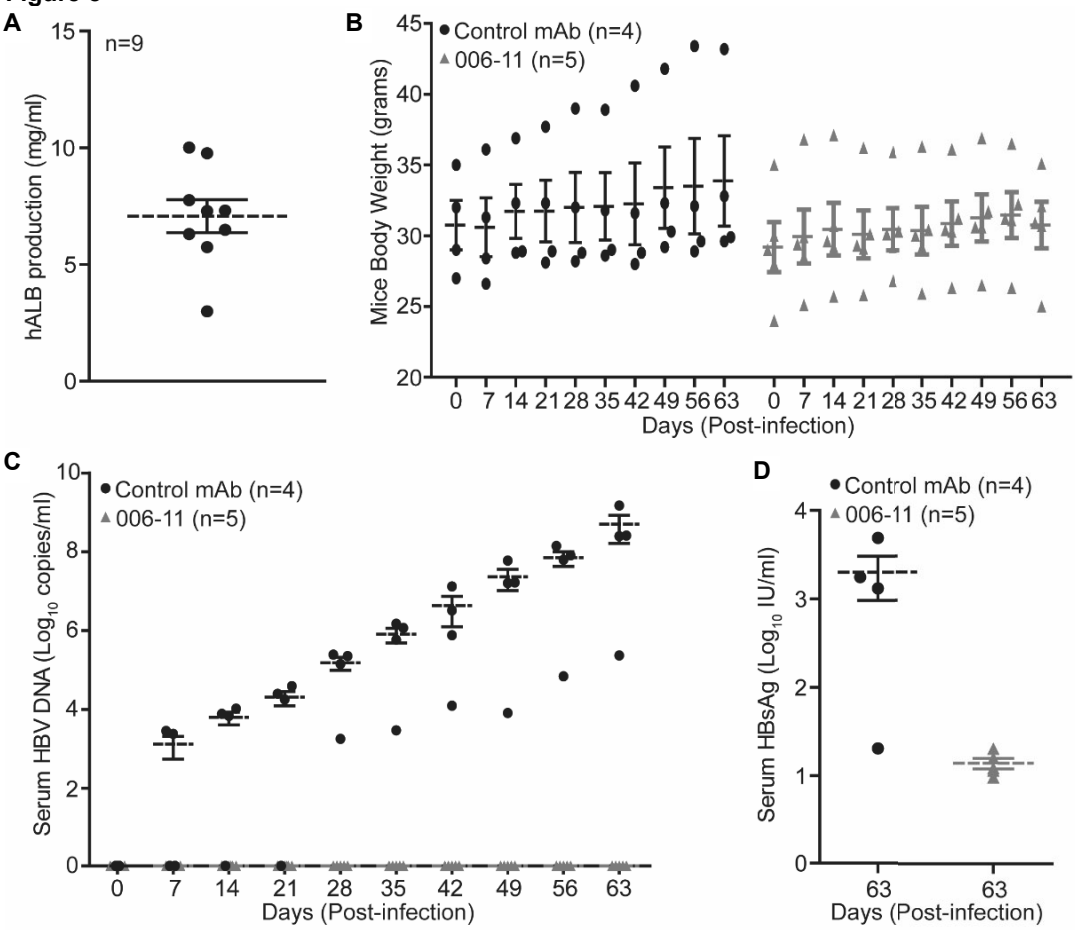

A
n=9
hALB production (mg/ml)
B
Control mAb (n=4)
006-11 (n=5)
Mice Body Weight (grams)
Days (Post-infection)
C
Control mAb (n=4)
006-11 (n=5)
Serum HBV DNA (Log10 copies/ml)
Days (Post-infection)
D
Control mAb (n=4)
006-11 (n=5)
Serum HBsAg (Log10 IU/ml)
Days (Post-infection)

Figure 8 (continued)

E

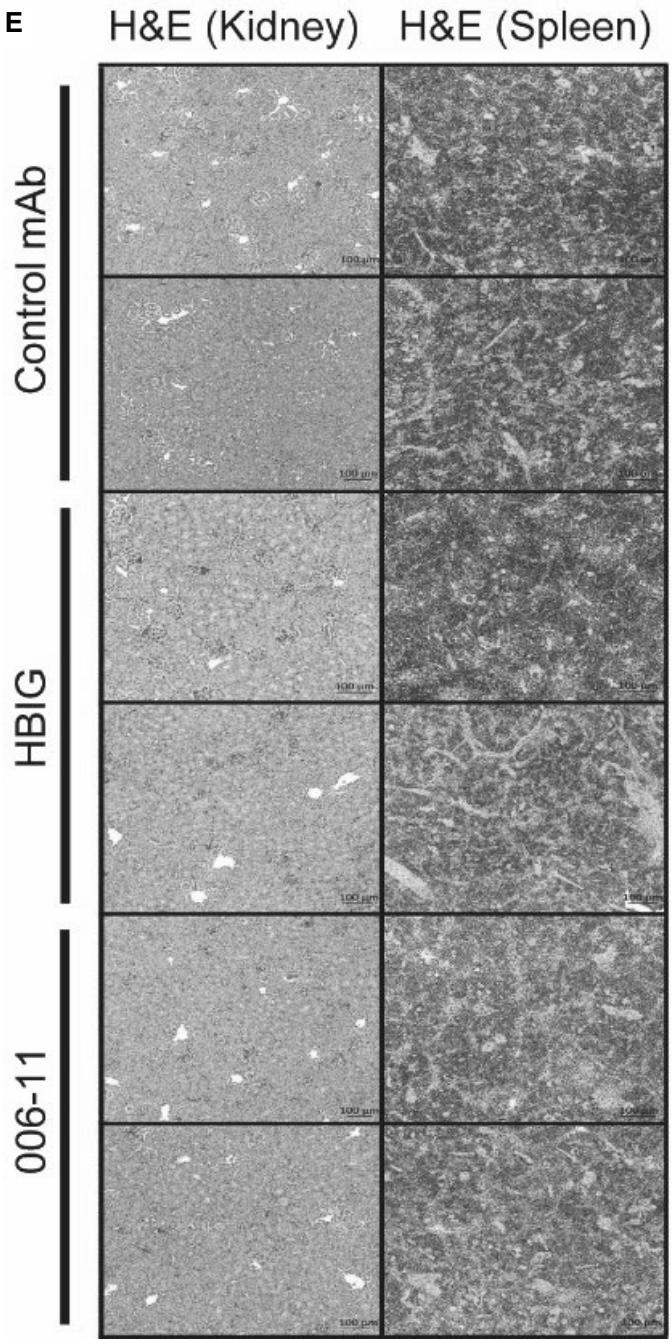
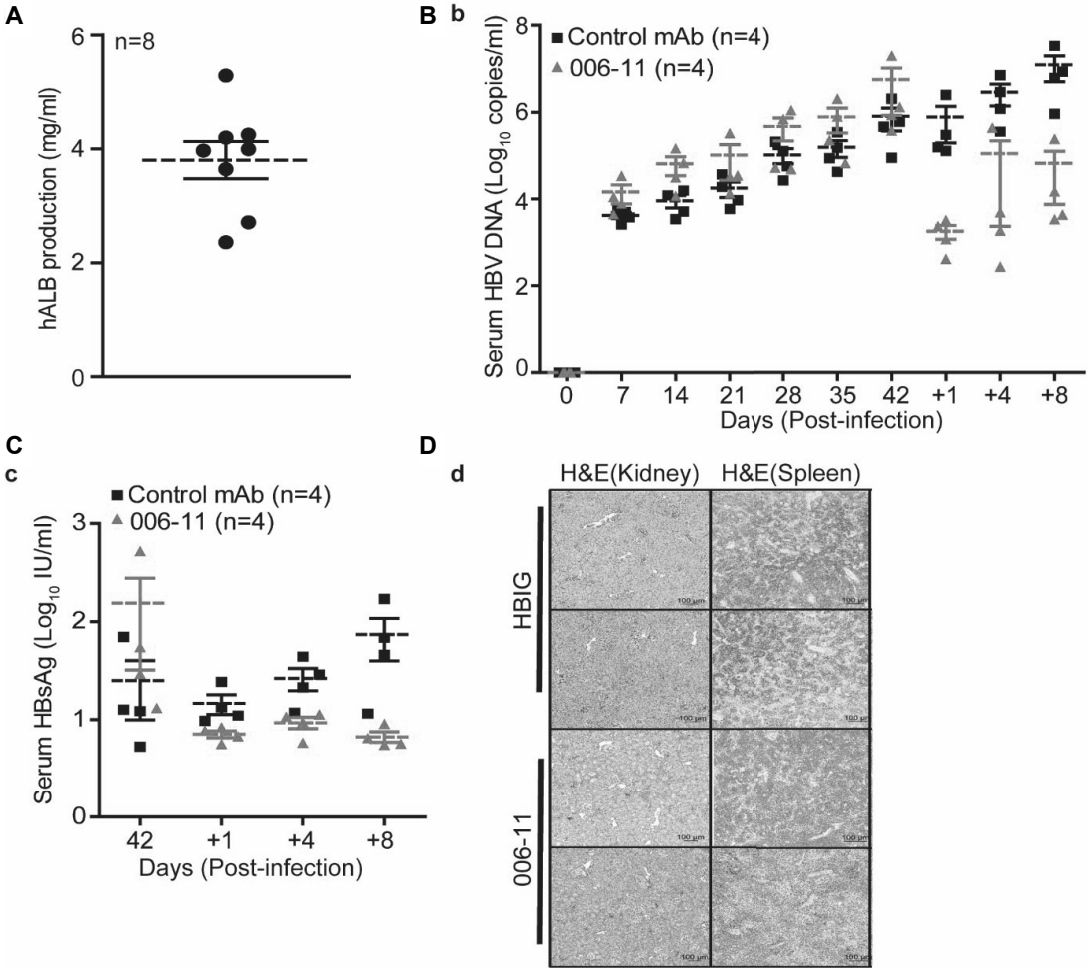


Figure 9


A
n=8
hALB production (mg/ml)
B b
Control mAb (n=4)
006-11 (n=4)
Serum HBV DNA (Log10 copies/ml)
Days (Post-infection)
C
c
Control mAb (n=4)
006-11 (n=4)
Serum HBsAg (Log10 IU/ml)
Days (Post-infection)
D
d
H&E(Kidney)
H&E(Spleen)
HBIG
006-11