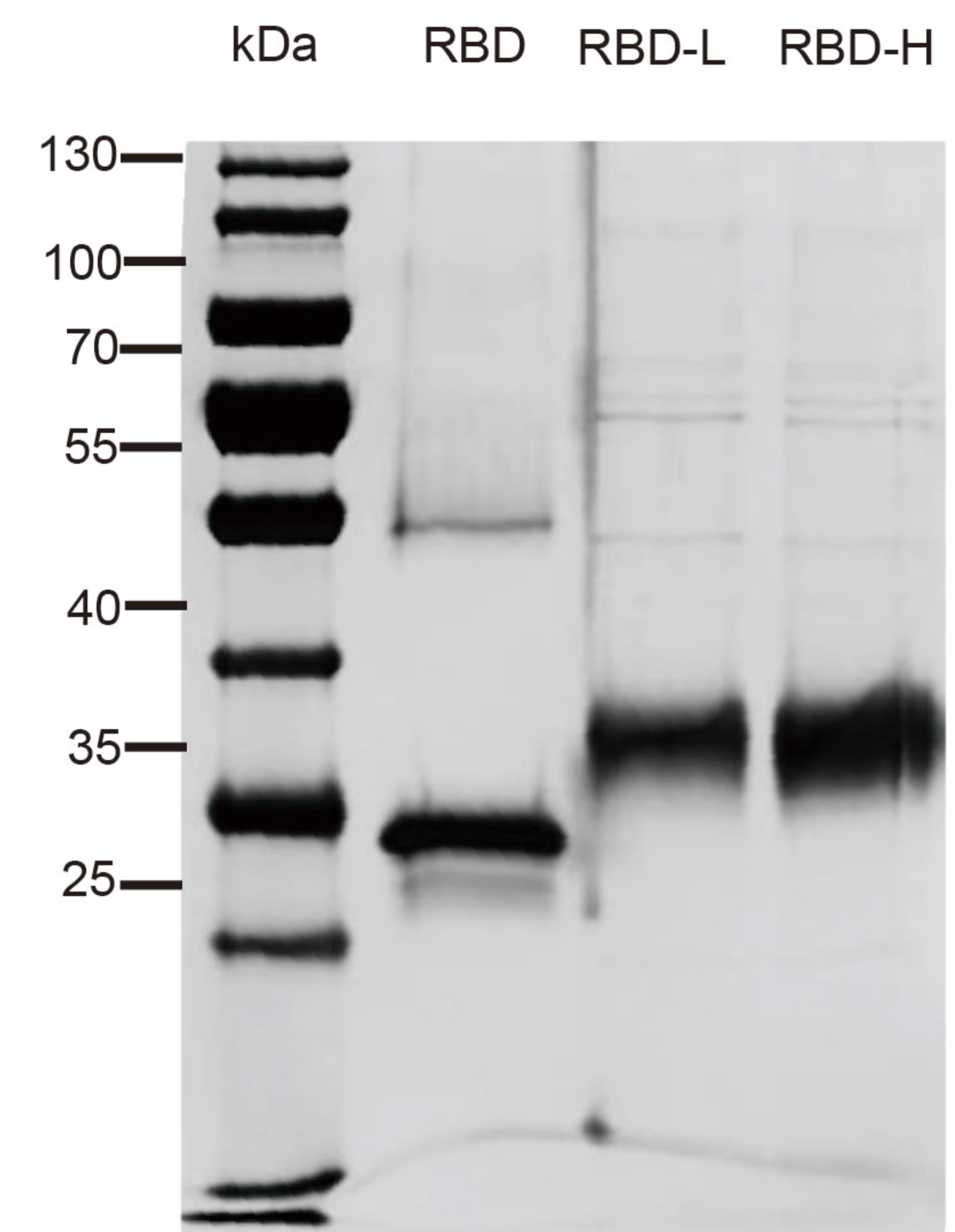


Supplementary Figure 2

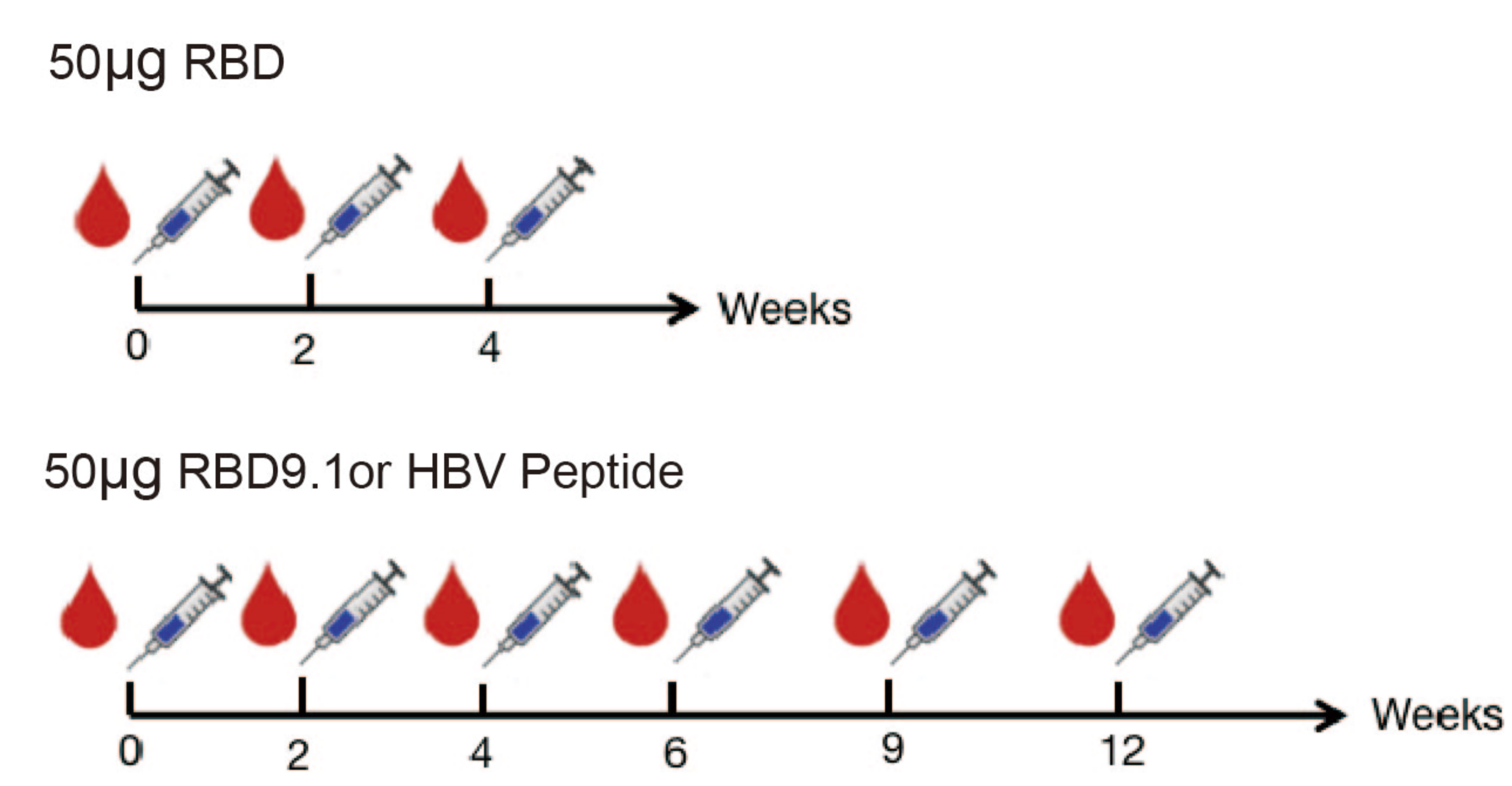
A.

Epitopes	Positions	Amino acid sequence
RBD9.1	444-463 (RBD)	KVGGNYNYLYRLFRKSNLKP
S ⁴⁴⁸⁻⁴⁵⁶ (P45)	448-456 (RBD)	NYNYLYRLF
HBV Peptide	14-32 (S1)	TNLSVPNPLGFFPDHQLDP

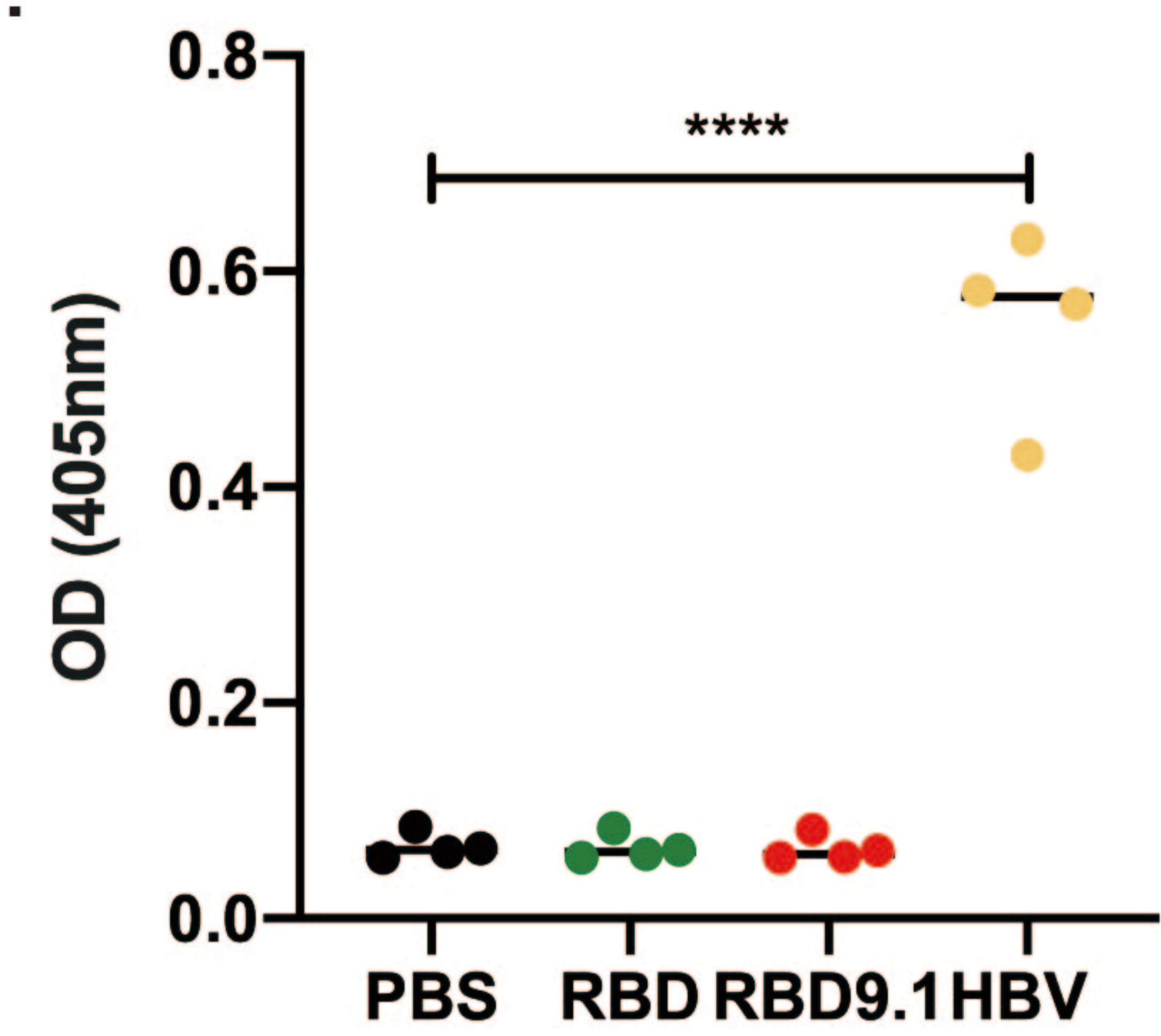
C.



B.



D.



E.

Wildtype	KVGGNYNYLYRLFRKSNLKP
K444A	AVGGNYNYLYRLFRKSNLKP
V445A	KAGGNYNLYRLFRKSNLKP
G446A	KVAGNYNYLYRLFRKSNLKP
G447A	KVGANYNLYRLFRKSNLKP
N448A	KVGGAYNYLYRLFRKSNLKP
Y449A	KVGGNANYLYRLFRKSNLKP
N450A	KVGGNYAYLYRLFRKSNLKP
Y451A	KVGGNYNALYRLFRKSNLKP
L452A	KVGGNYNYAYRLFRKSNLKP
Y453A	KVGGNYNYLARLFRKSNLKP
R454A	KVGGNYNYLYALFRKSNLKP
L455A	KVGGNYNYLYRAFRLFRKSNLKP
F456A	KVGGNYNYLYRLARLFRKSNLKP
R457A	KVGGNYNYLYRLFAKSNLKP
K458A	KVGGNYNYLYRLFRASNLKP
S459A	KVGGNYNYLYRLFRKANLKP
N460A	KVGGNYNYLYRLFRKSALKP
L461A	KVGGNYNYLYRLFRKSNLAKP
K462A	KVGGNYNYLYRLFRKSNLAP
P463A	KVGGNYNYLYRLFRKSNLKA

F.

SARS-CoV-2	387	LNDLCFTNVYADSFVI	RGDEVRQIAPGQTGKIADYNYKLPDDFT	GCV	I	AWN	437	
SARS-CoV	374	LNDLCFSNVYADSFVVKGDDVRQIAPGQTGVIADYNYKLPDDFMGCVLAWN					424	
SARS-CoV-2	438	SNNLDSKVG	GNYNLYRLFRKSN	LKPFERDISTE	IYQAGST	PCNGVEGFNC	488	
SARS-CoV	425	TRNI	DATST	GNYNKYRYLRHGKLRPFERDISNVPFSPDGK	PCT	P-P	ALNC	474
SARS-CoV-2	489	YF	PLQSYGFQPTNGV	GYQP	YRVVLSFE		516	
SARS-CoV	475	YWPLNDYGFYTTT	G	I	GYQP	YRVVLSFE	502	

G.

SARS-COV-2 Strains	The sequence of RBD9.1 in SARS-COV-2
WT	KVGGNYNYLYRLFRKSNLKP
P.1	KVGGNYNYLYRLFRKSNLKP
B.1.351	KVGGNYNYLYRLFRKSNLKP
B.1.1.7	KVGGNYNYLYRLFRKSNLKP
B.1.617.1	KVGGNYNYRYRLFRKSNLKP
B.1.617.2	KVGGNYNYRYRLFRKSNLKP