

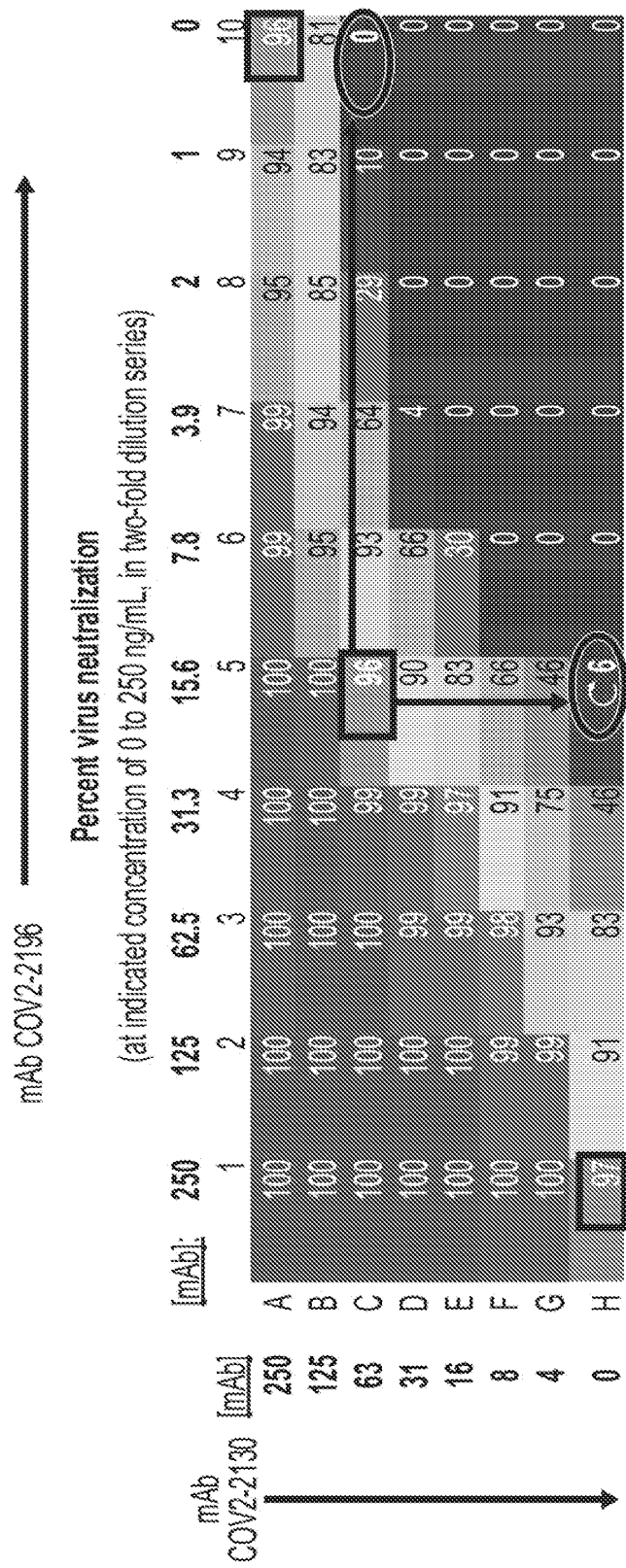


FIG. 1

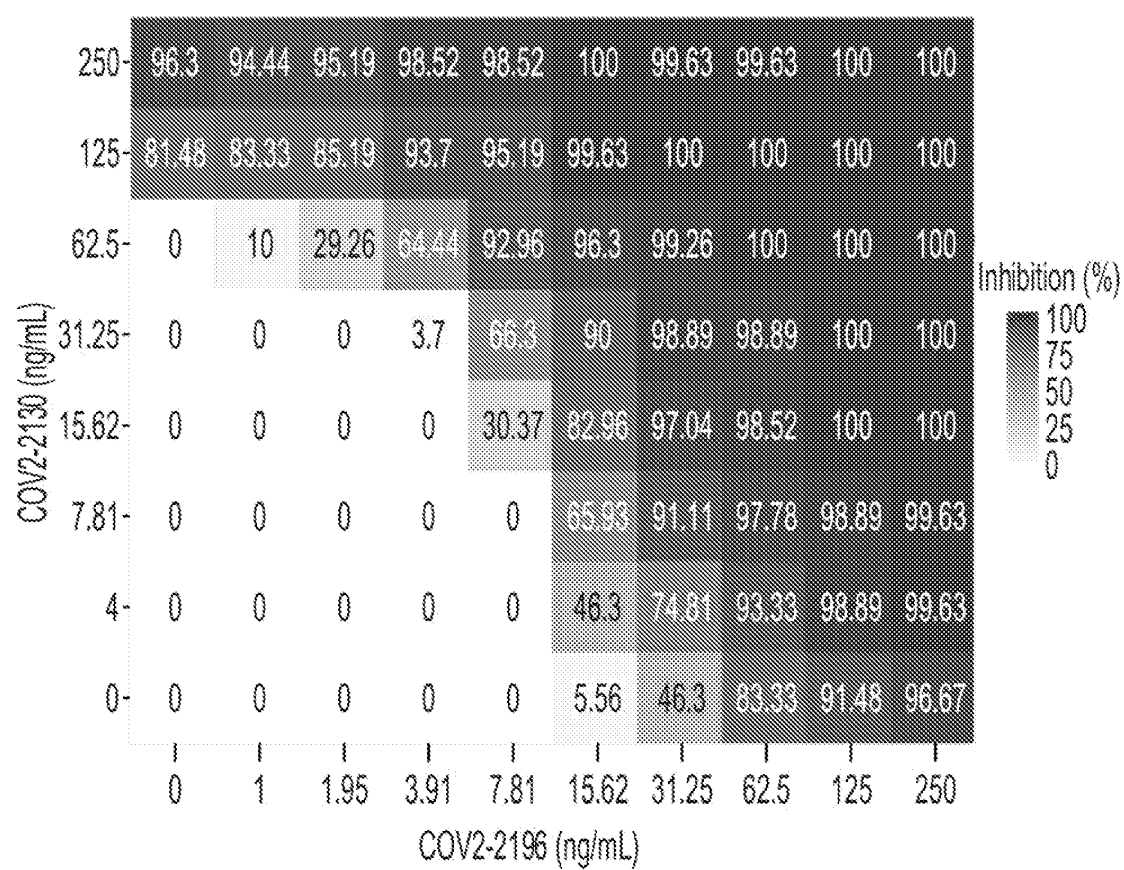


FIG. 2A

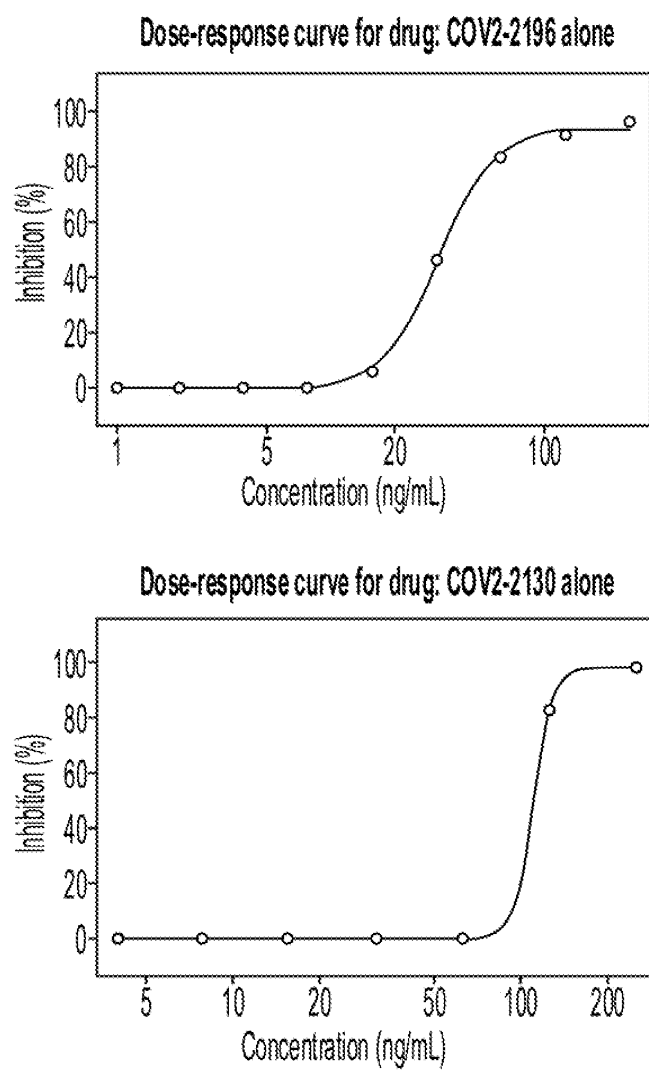


FIG. 2B

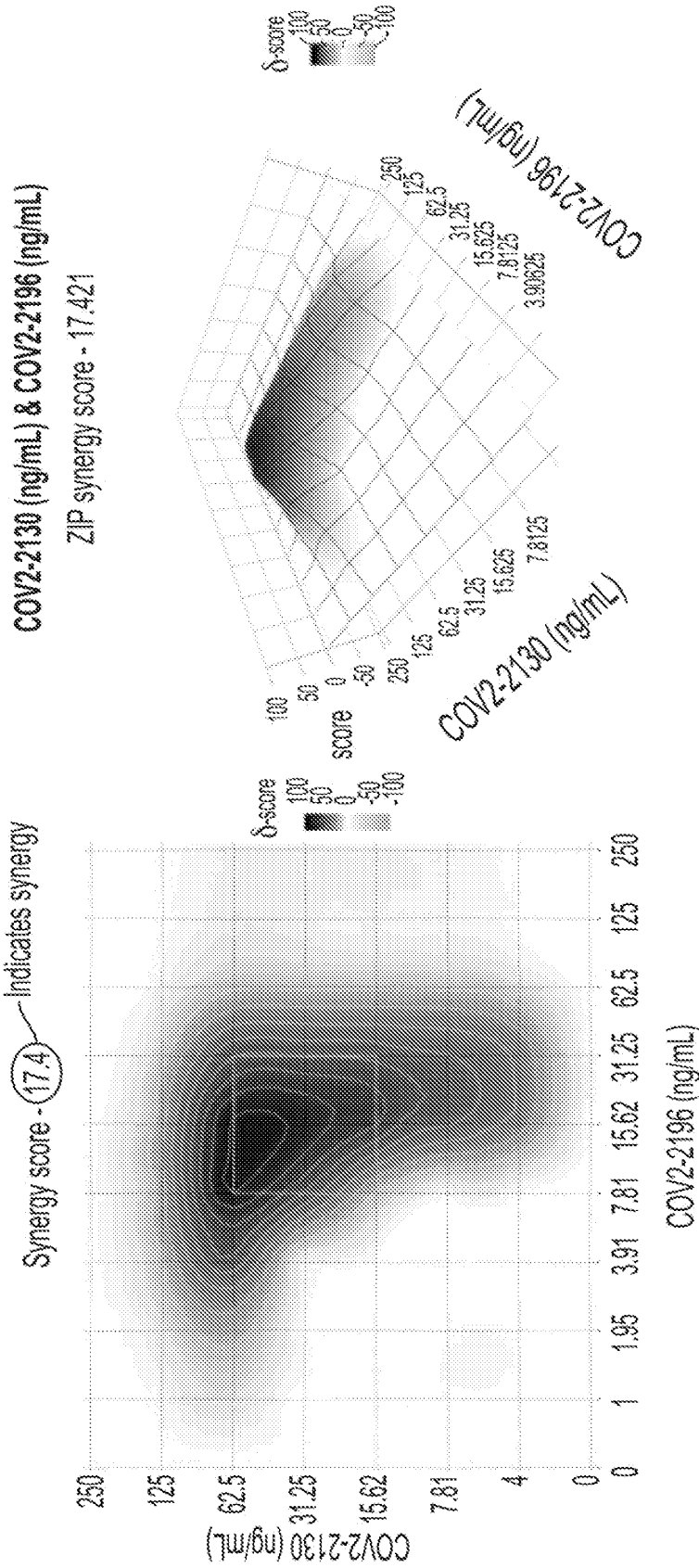


FIG. 3

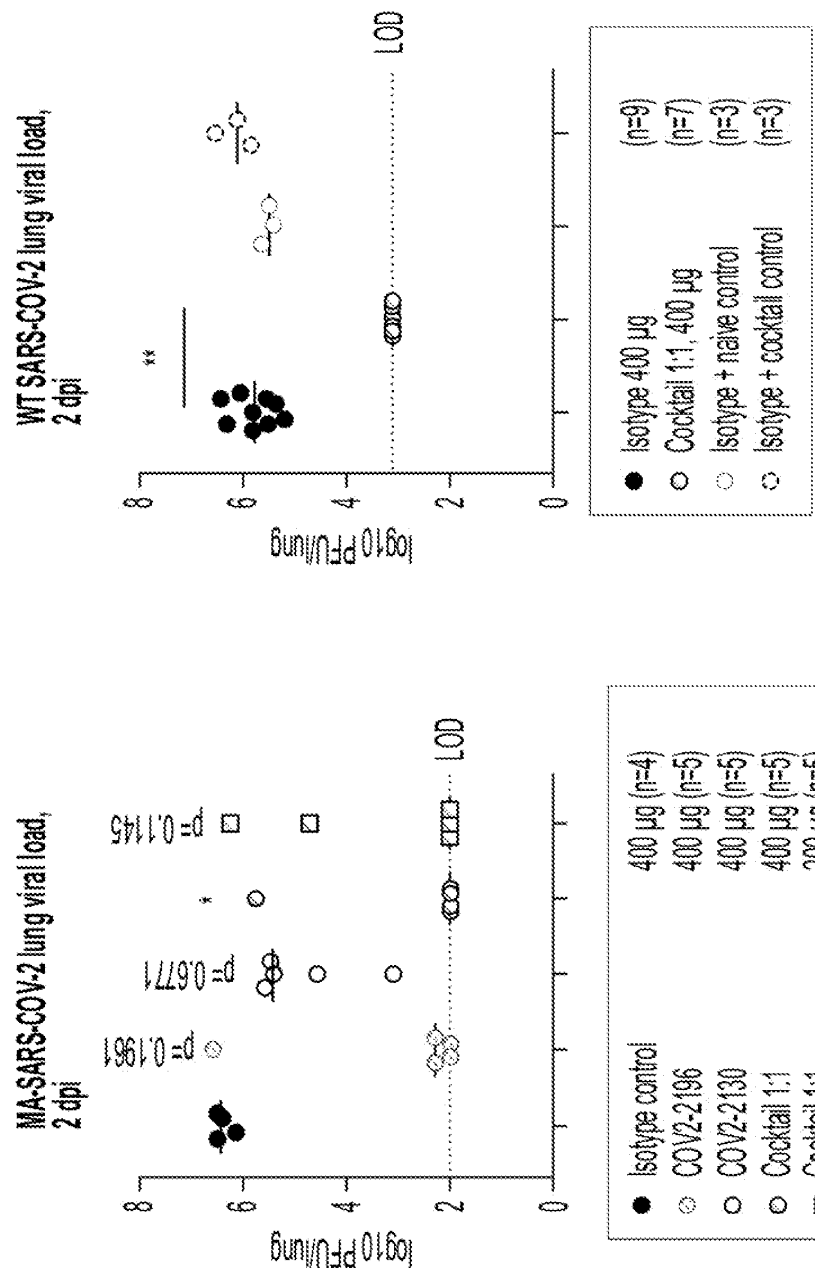


FIG. 4A

FIG. 4B

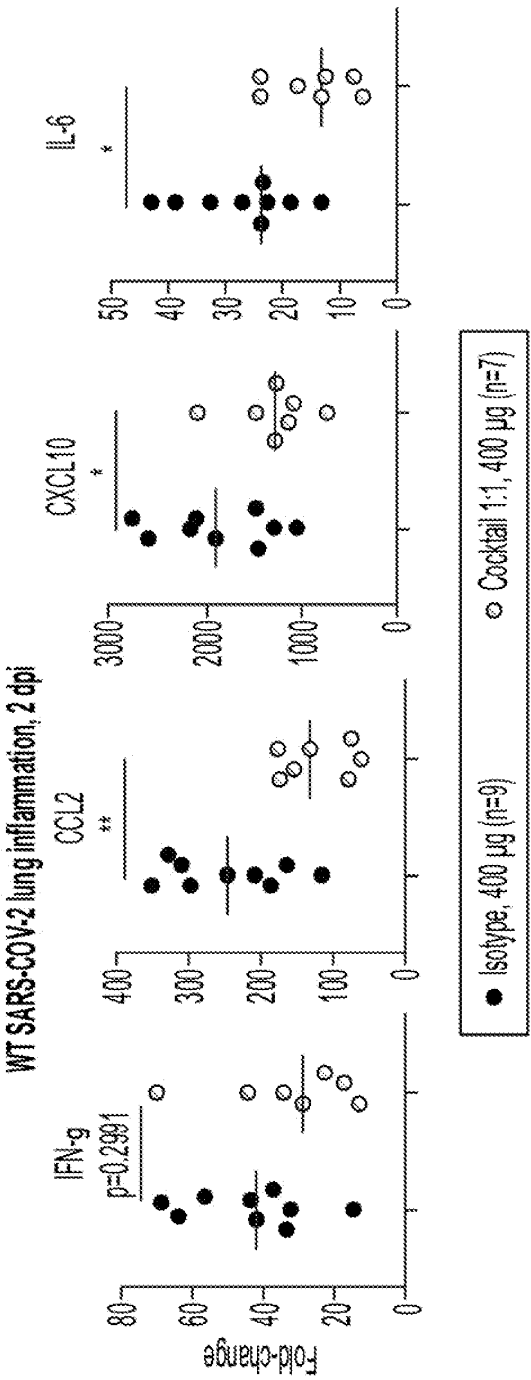


FIG. 4C

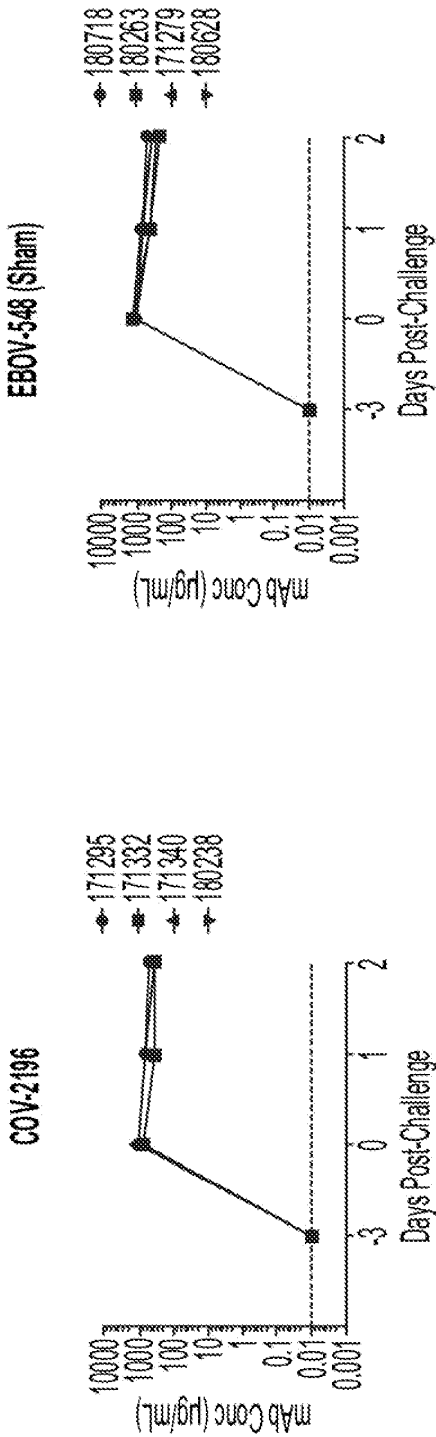


FIG. 5

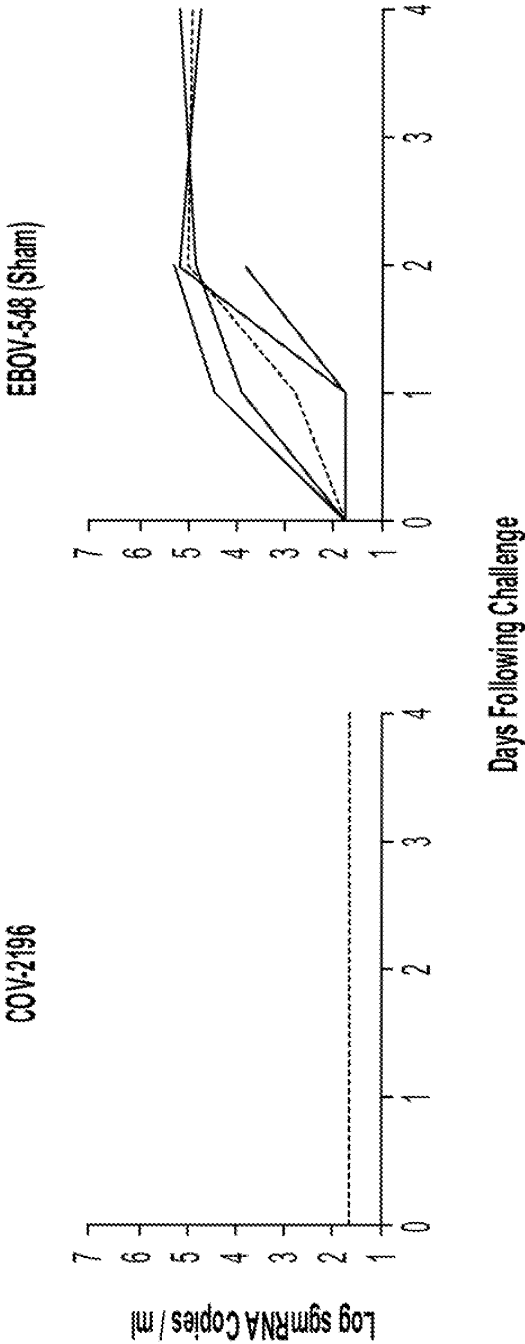


FIG. 6

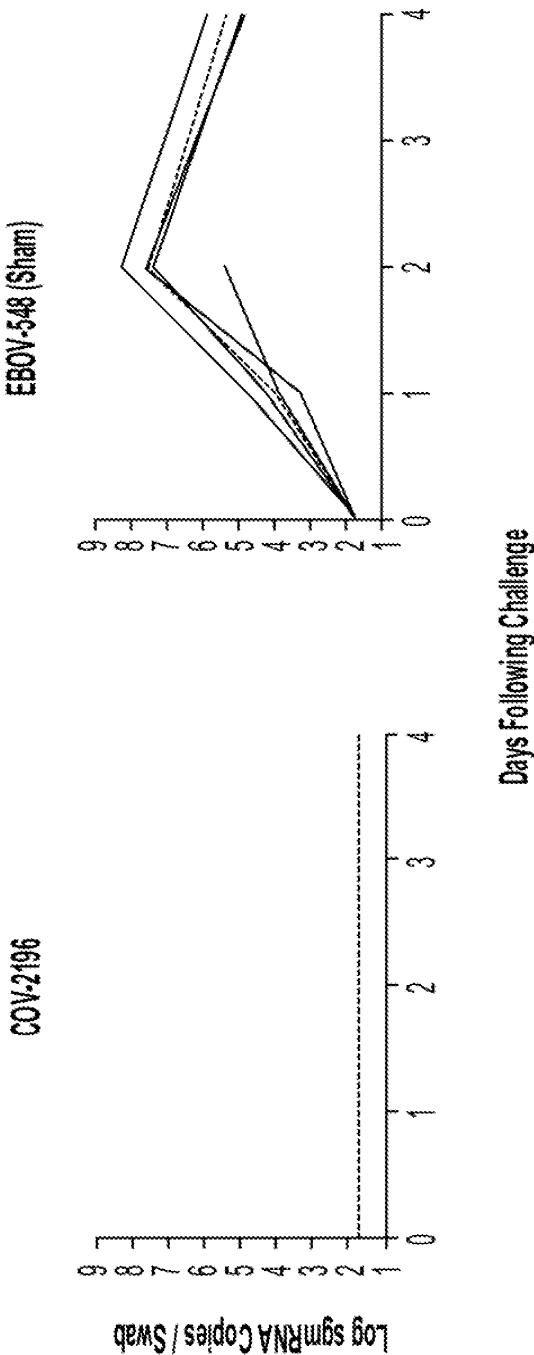


FIG. 7

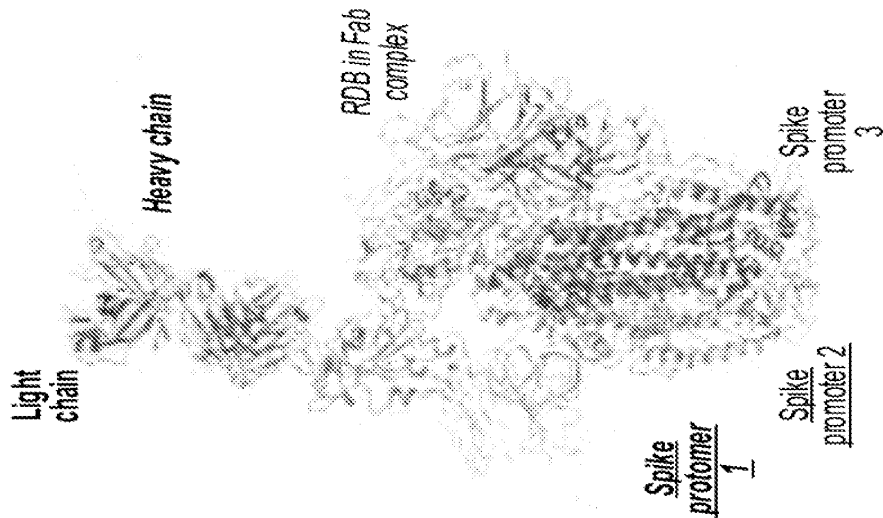


FIG. 8C

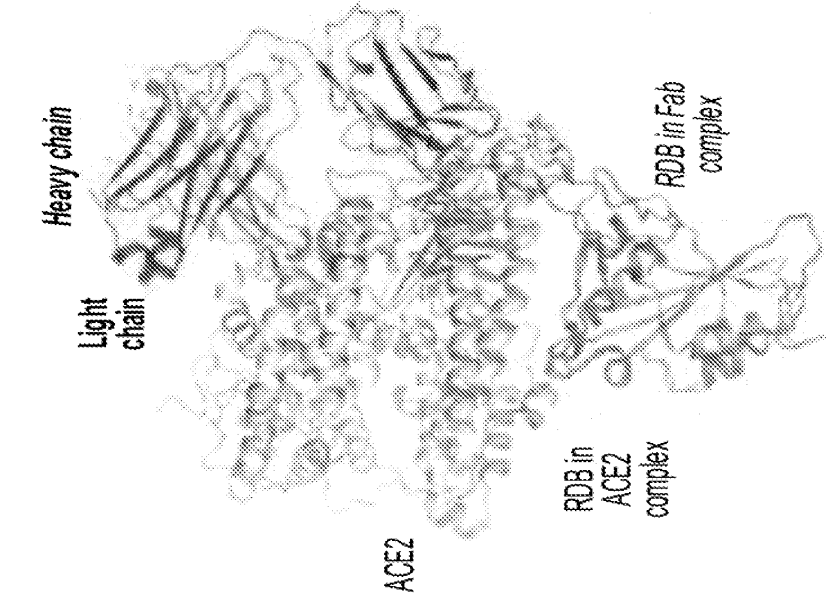


FIG. 8B

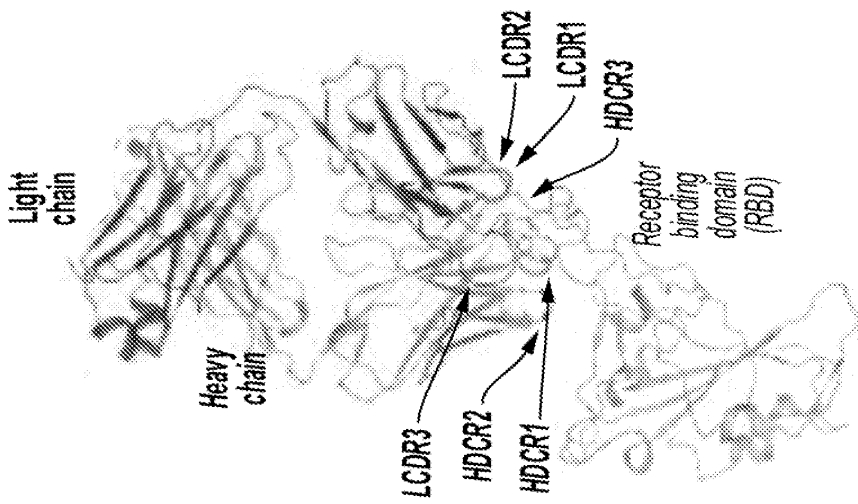


FIG. 8A

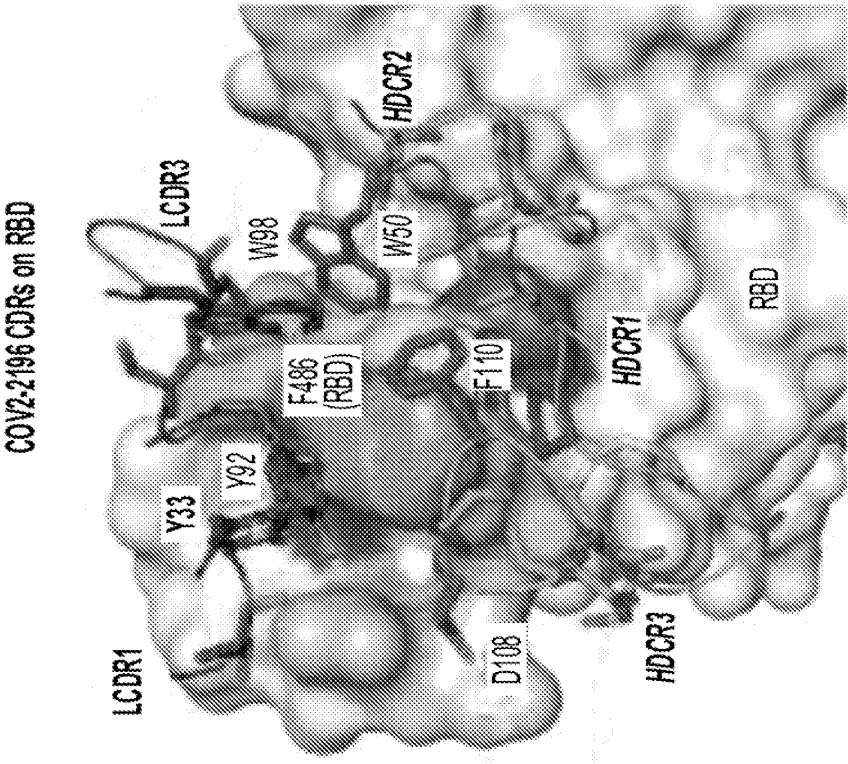


FIG. 8E

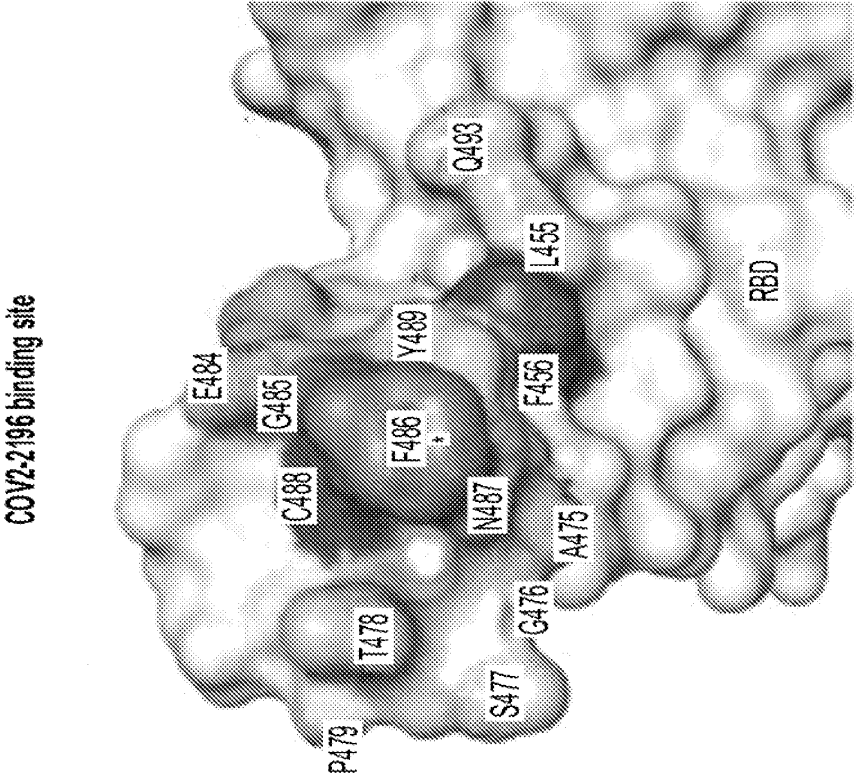


FIG. 8D

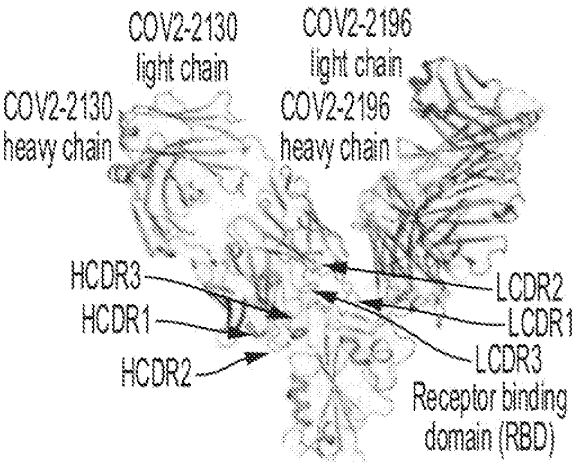


FIG. 9A

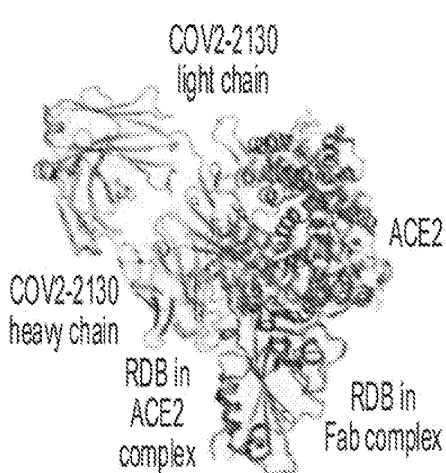


FIG. 9B

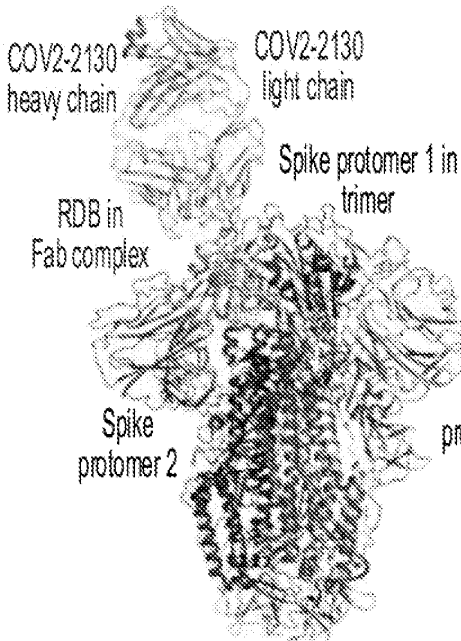


FIG. 9C

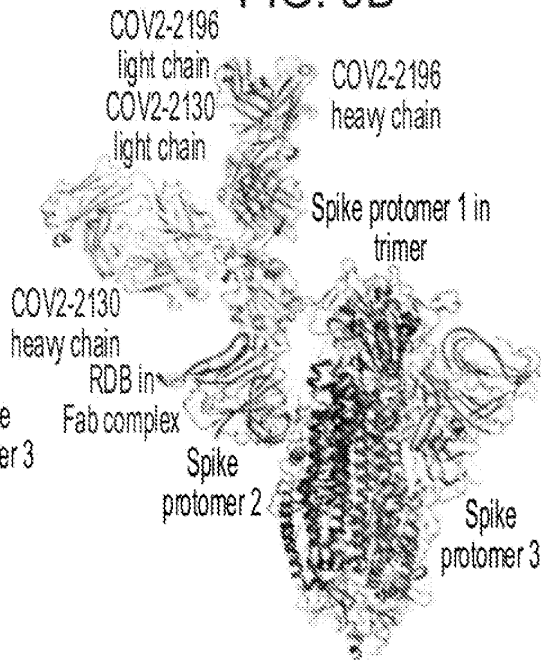


FIG. 9D

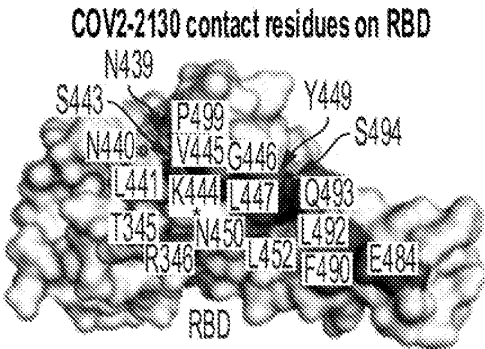


FIG. 9E

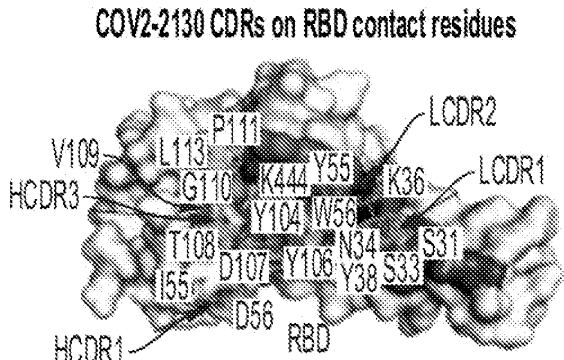


FIG. 9F

gene	Heavy chain			Light chain		Reference
	FR2-HCDR2	HCDR3-FR4		LCDR1-FR2	LCDR3-FR4	
IGHV1-58	IGWIV	CAA.....				
IGHD2-2		...GYCSSTSCVA.....				
IGHD2-8		...GYCTNGVCVA.....				
IGHD2-15		...GYCSGGSCYS.....				
IGHJ3*02		DAFDIW				
mAb						
—	4A	9A		31	91	
COV2-2196	IGWIV	CAAPYCSSISCNDFDIW		SSYLAW	HYGSSRGWTFG	Zost et al., 2020
COV2-2381	IGWIA	CAAPYCSRTSCDAFDIW		SSYLAW	HFGSSSQWTFG	
COV2-2072	IGWIV	CAAPHCNRTSCDAFDIW		SSYLGW	QYGSSP.WTFG	
MnC52p1_G1	IGWIV	CAAPRCQQSCYDFDIW		SSYLAW	QYGSSP.WTFG	Kreer et al., 2020
HbnC31p2_C6	IGWIV	CAAPYCSSTRCDAFDIW		SSYLAW	QYGRSP.WTFG	
HbnC31p1_C6	IGWIV	CAAPHCSSTICDGFDIW		SSYLAW	QYGSSP.WTFG	
S2E12	VGWIV	CASPYCSCGSCSDGFDIW		SSYLAW	QYVGLTGWTFG	Tortoni et al., 2020
COV107_1	IGWIV	CAAPHCSSTSCDAFDIW		SSYLAW	QYGNSP.WTFG	Robbiani et al., 2020
COV107_2	IGWIV	CAAPYCSGSCSDAFDIW		SSYLAW	QYGNSP.WTFG	
COV72	IGWIV	CAAVDCNSTSCDAFDIW		SSYLAW	QYDISP.WTFG	
COV21_1	IGWIV	CAAPHCSGSCSDAFDIW		SSYLAW	QYGNSP.WTFG	
COV21_2	IGWIV	CAAPHCSGSCSDAFDIW		SSYLAW	QYGNSP.WTFG	
COV57_1	IGWIV	CAANHCSGSCSDGFDIW		SSYLAW	QYGNSP.WTFG	
COV57_2	IGWIV	CAAPYCSGSCSDAFDIW		SSYLAW	QYGNSP.WTFG	

FIG. 10A

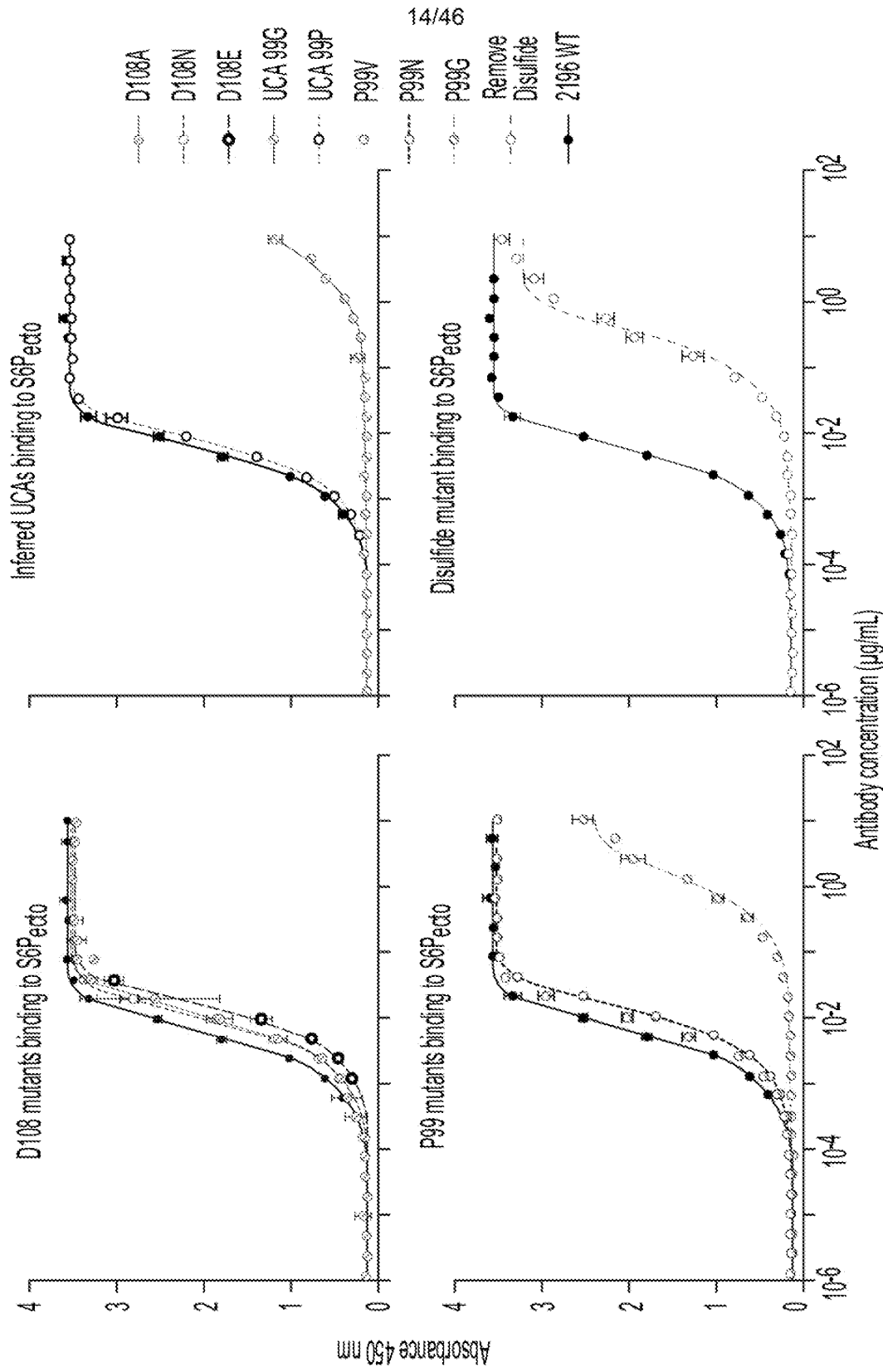
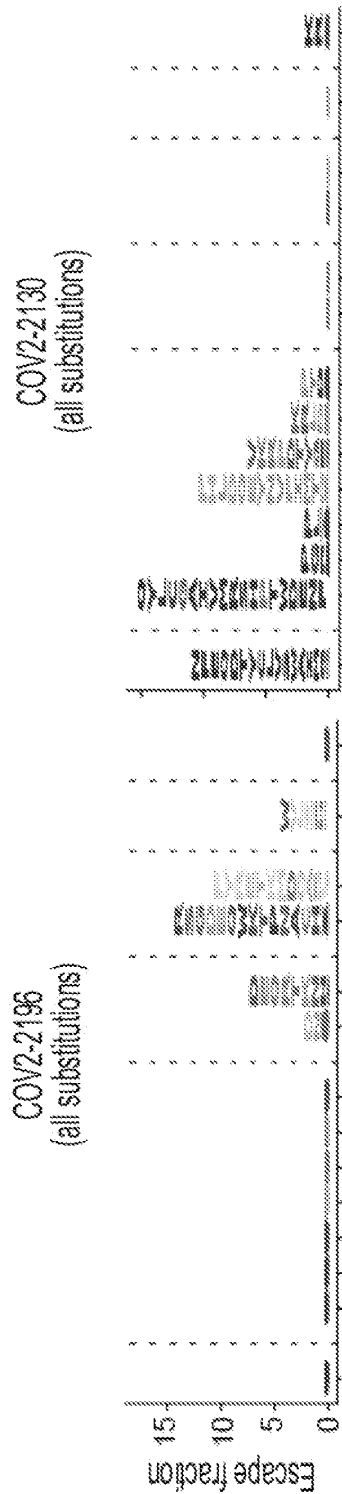


FIG. 10B



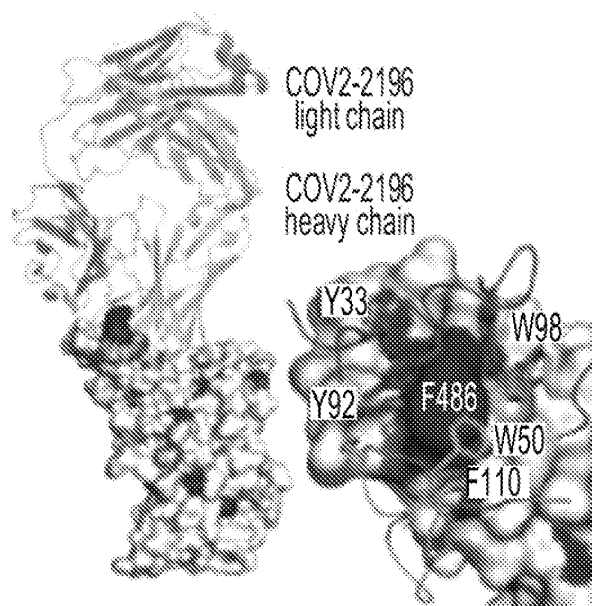


FIG. 11C

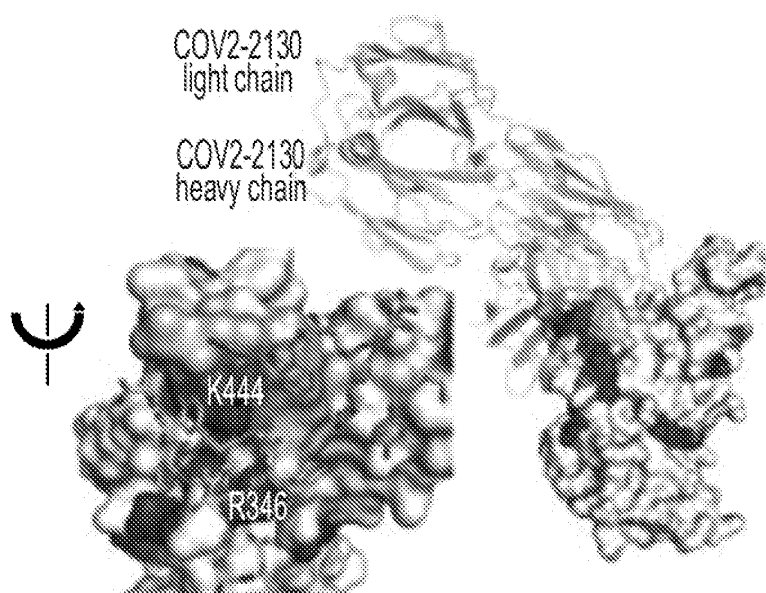


FIG. 11D

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VSV-SARS-CoV-2 escape variant selection		
Selection condition	Replicates with escape/total	Mutations identified
COV2-2196	0/88 (0%)	N/A
COV2-2130	8/20 (40%)	K444R (6), K444E (2)
Cocktail (2196+2130)	0/104 (0%)	N/A

FIG. 11E

SARS-CoV-2 resistant variant selection			
Passaging condition	Test condition	Resistance detected	Mutations identified
AZD8895 (COV2-2196)	AZD8895	No	N/A
	AZD7442	No	
AZD1061 (COV2-2130)	AZD1061	Yes	N74K, R346I
	AZD7442	No	N/A
AZD7442 (Cocktail)	AZD7442	No	N/A

FIG. 11F

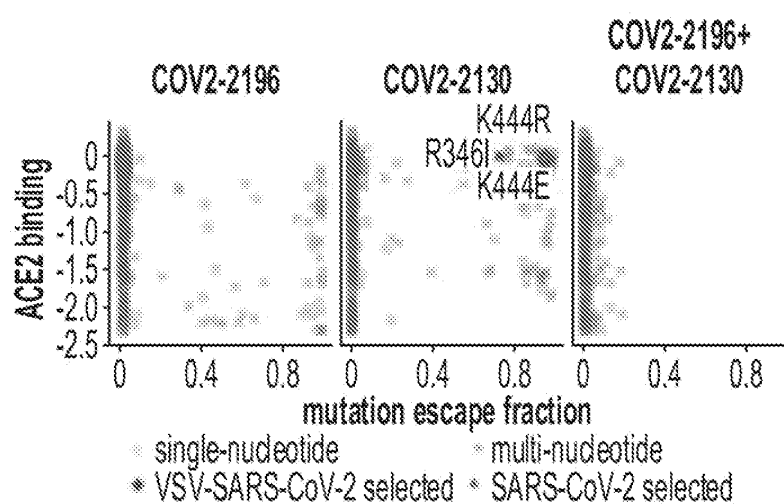


FIG. 11G

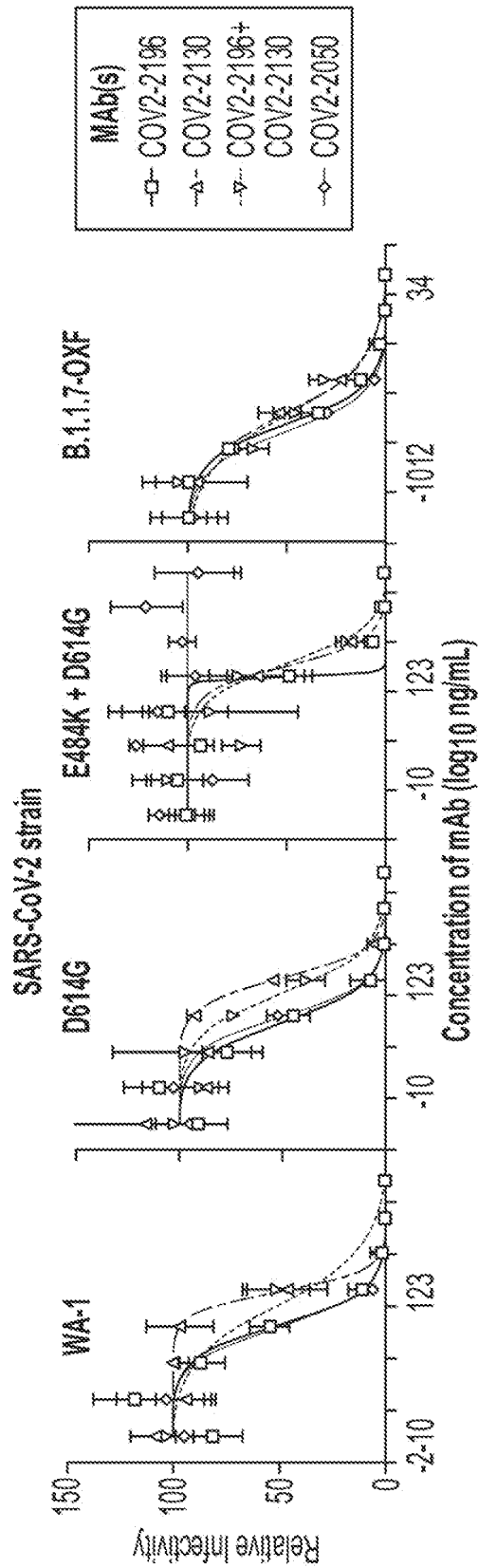


FIG. 11H

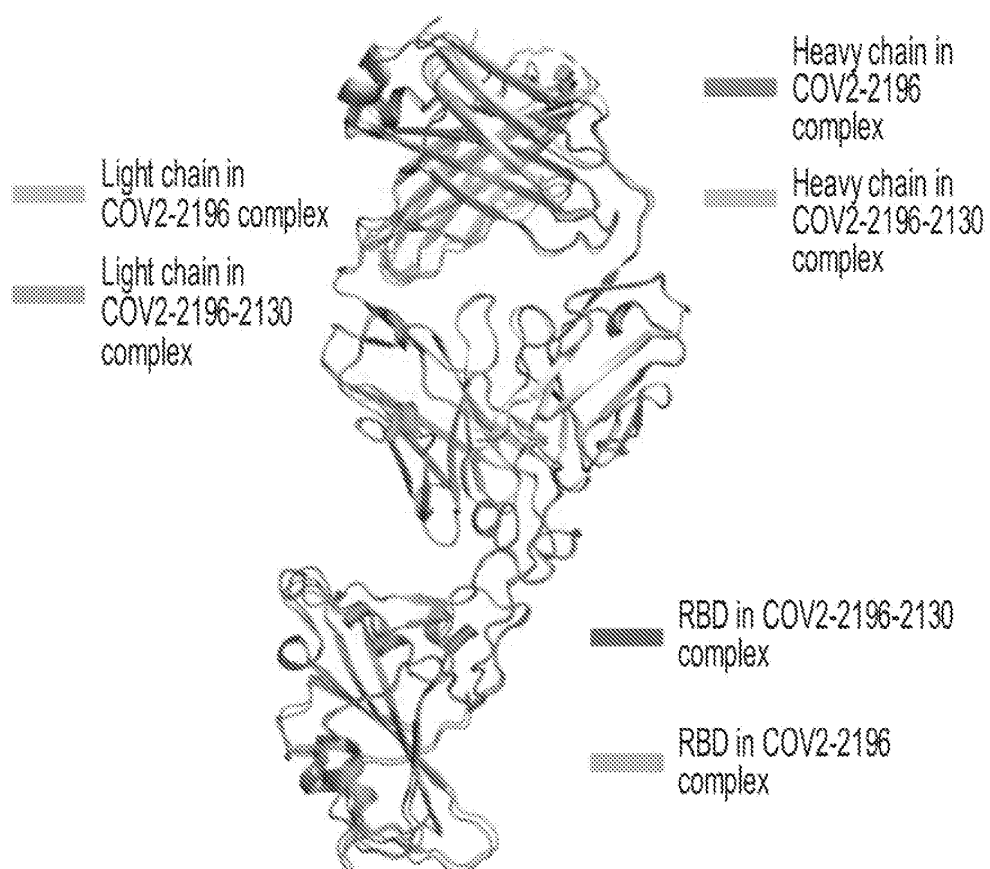
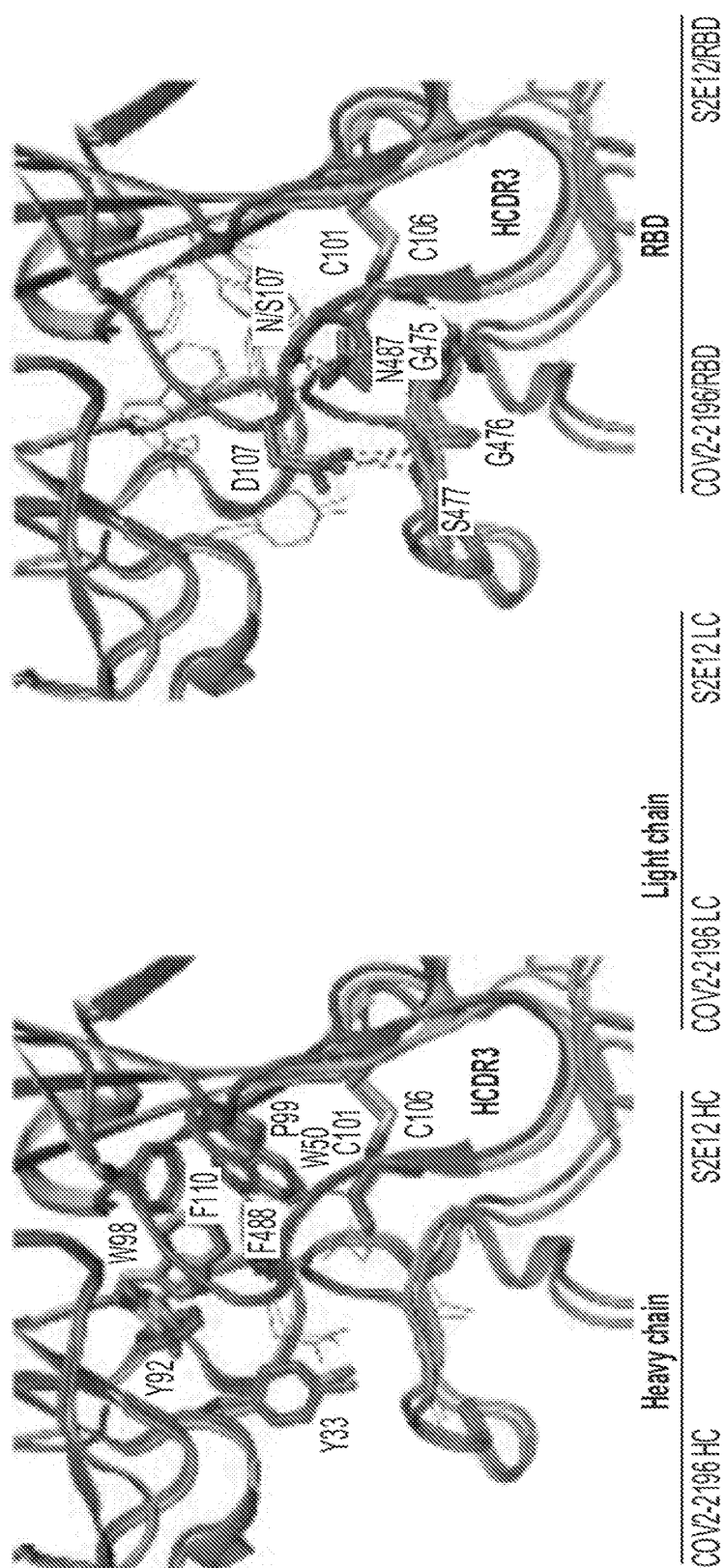


FIG. 12



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FILE 3A

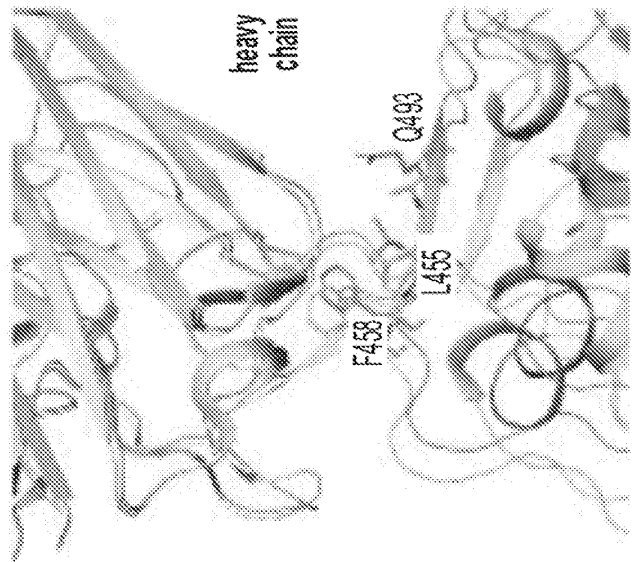


FIG. 13D

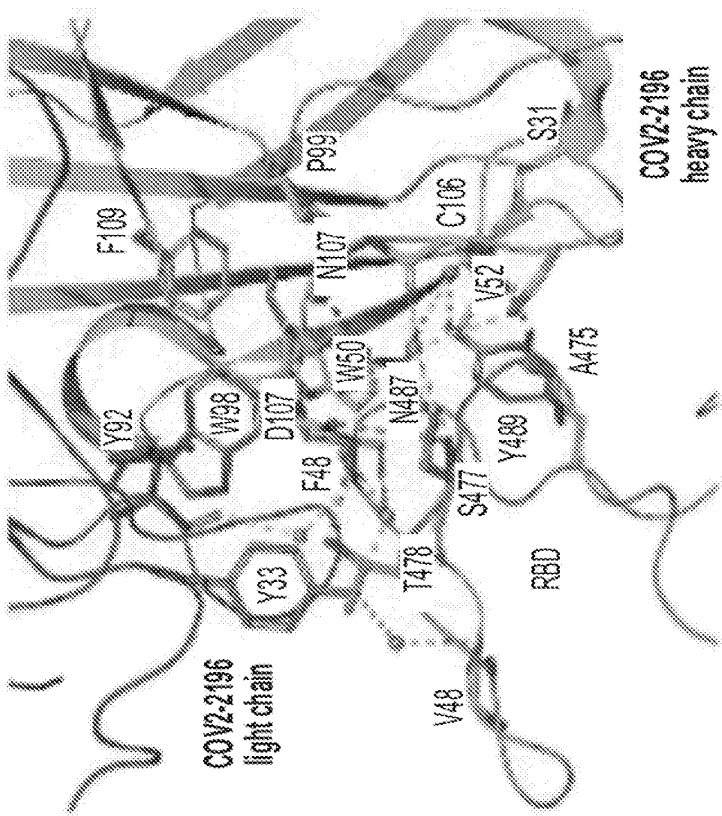


FIG. 13C

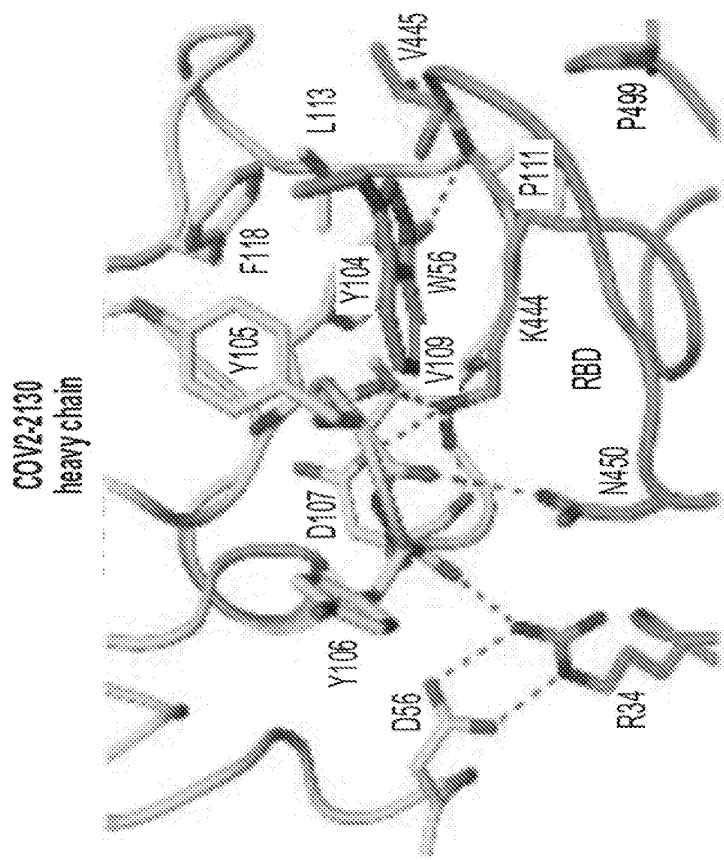


FIG. 13E

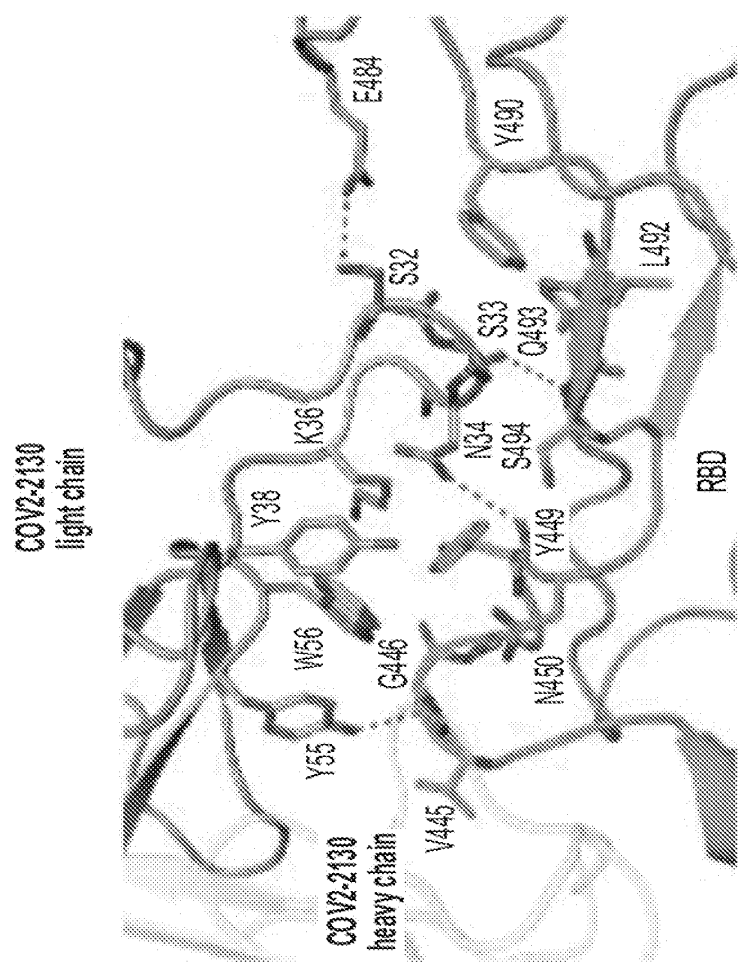
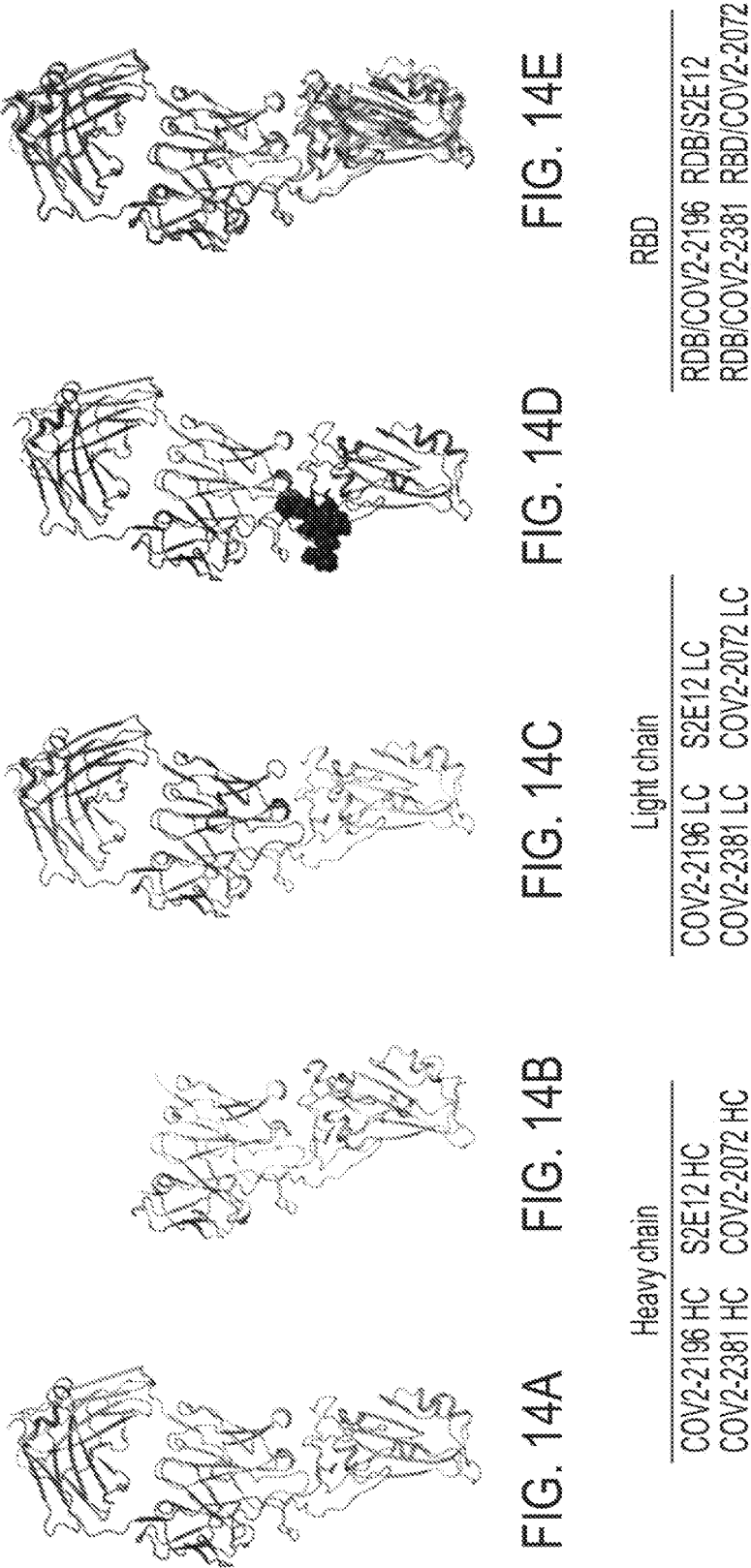


FIG. 13F



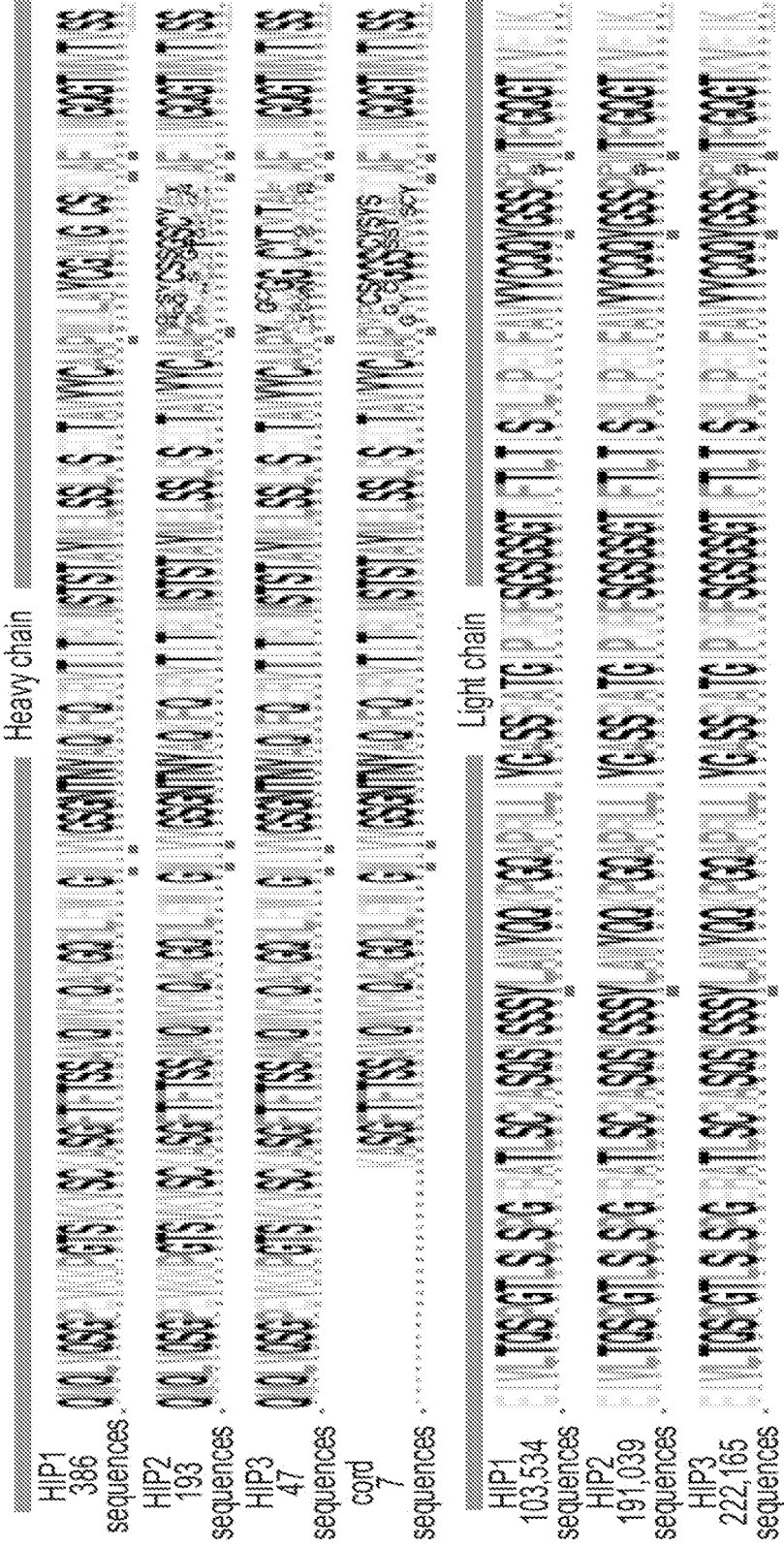


FIG. 15A

Subject	Light chain amino acid multiple sequence alignment	Number of occurrences
H1P1	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	2,323
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	1,087
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-LWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-LWTFGGGTNVEIK	1,086
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-SWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-SWTFGGGTNVEIK	601
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	539
H1P2	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	3,909
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-LWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-LWTFGGGTNVEIK	2,205
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	1,747
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-SWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-SWTFGGGTNVEIK	1,246
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	1,230
H1P3	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	3,908
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-LWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-LWTFGGGTNVEIK	1,889
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	1,809
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-SWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-SWTFGGGTNVEIK	1,293
	EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK EIVLTQSPGTLSPGERATLSCRASQSVSSSYLANWQKPGQAPRLIYGASSRATGIPDRFSGSGSGTDFTLTISRLEPEDFAVYCCQYGSS-PWTFGGGTNVEIK	953

FIG. 15B

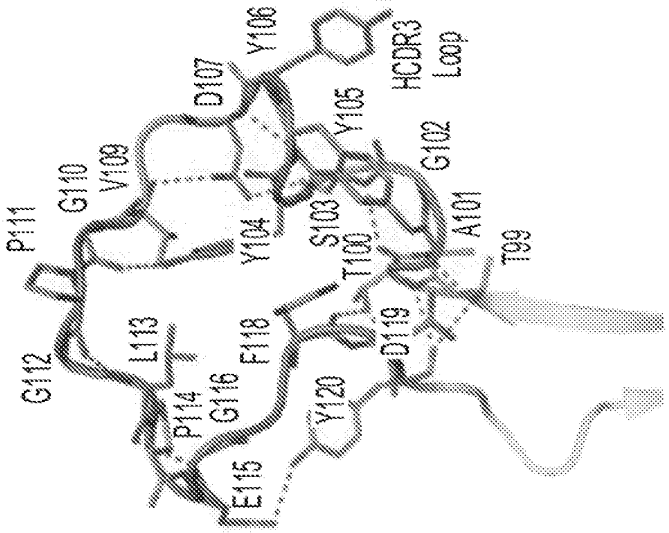


FIG. 16A

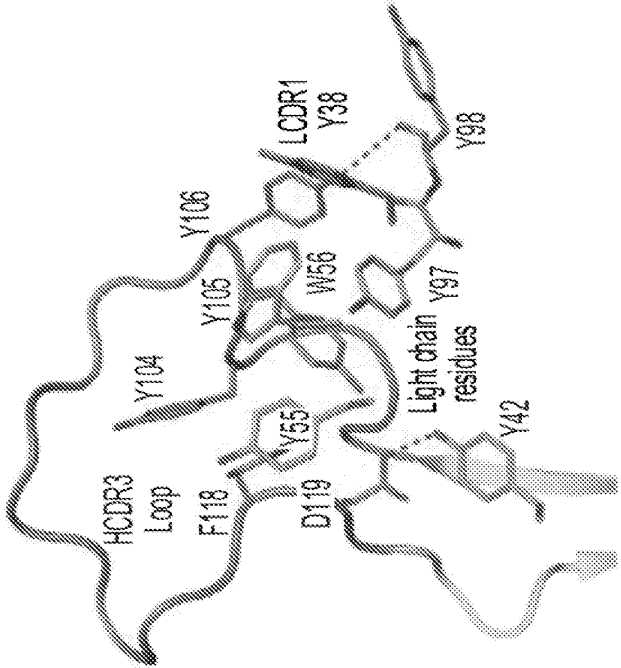


FIG. 16B

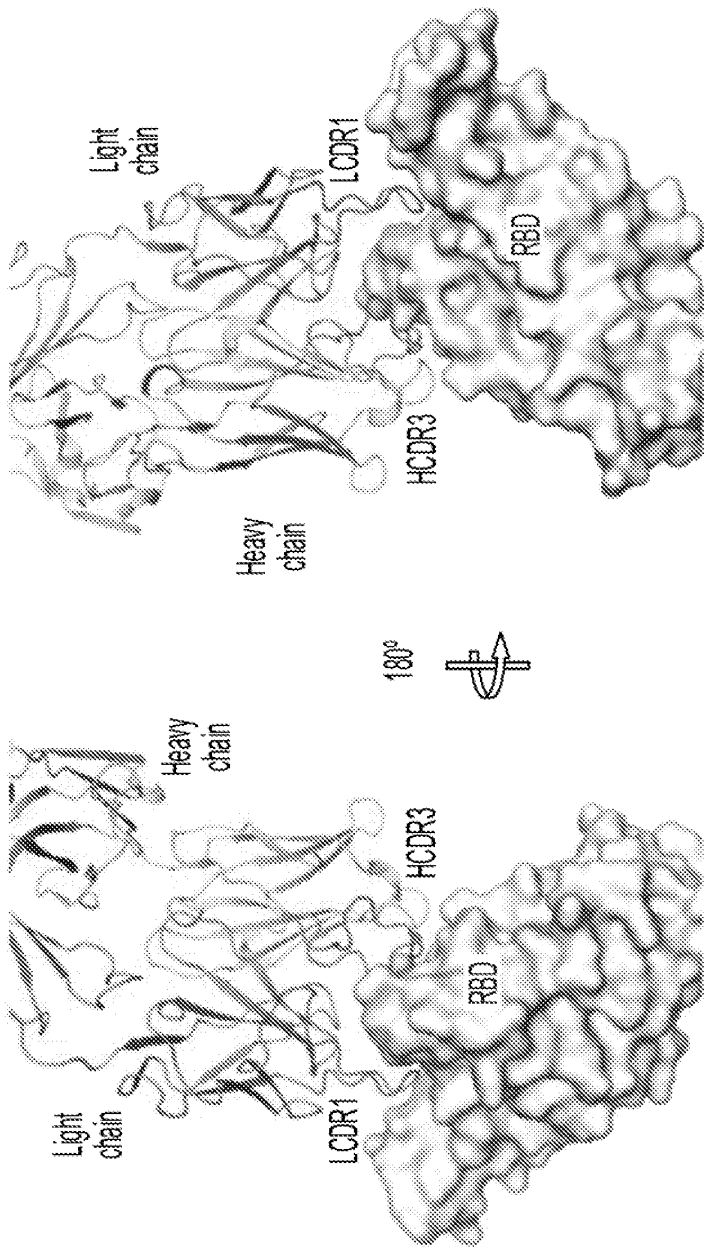


FIG. 16D

FIG. 16C

Interaction of Fab COV2-2130 and Fab
COV2-2196 when bound to RBD

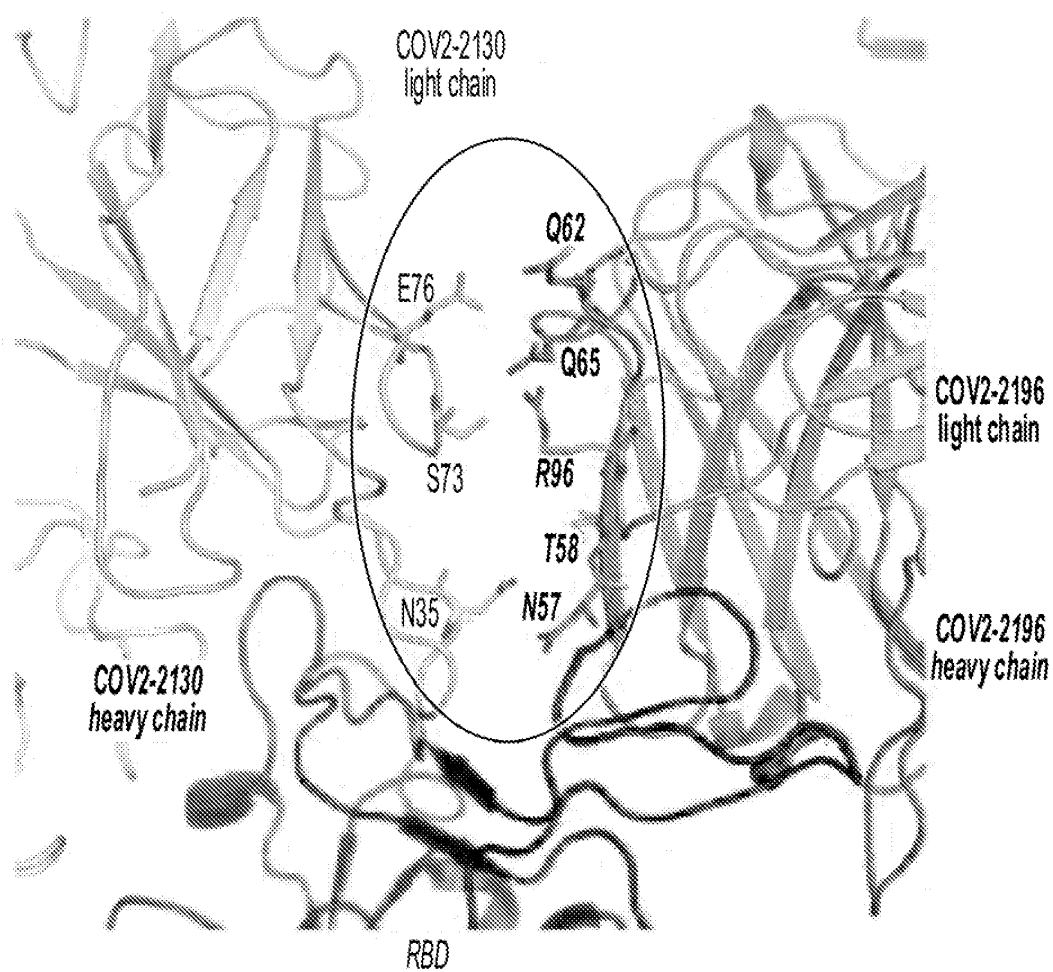


FIG. 17

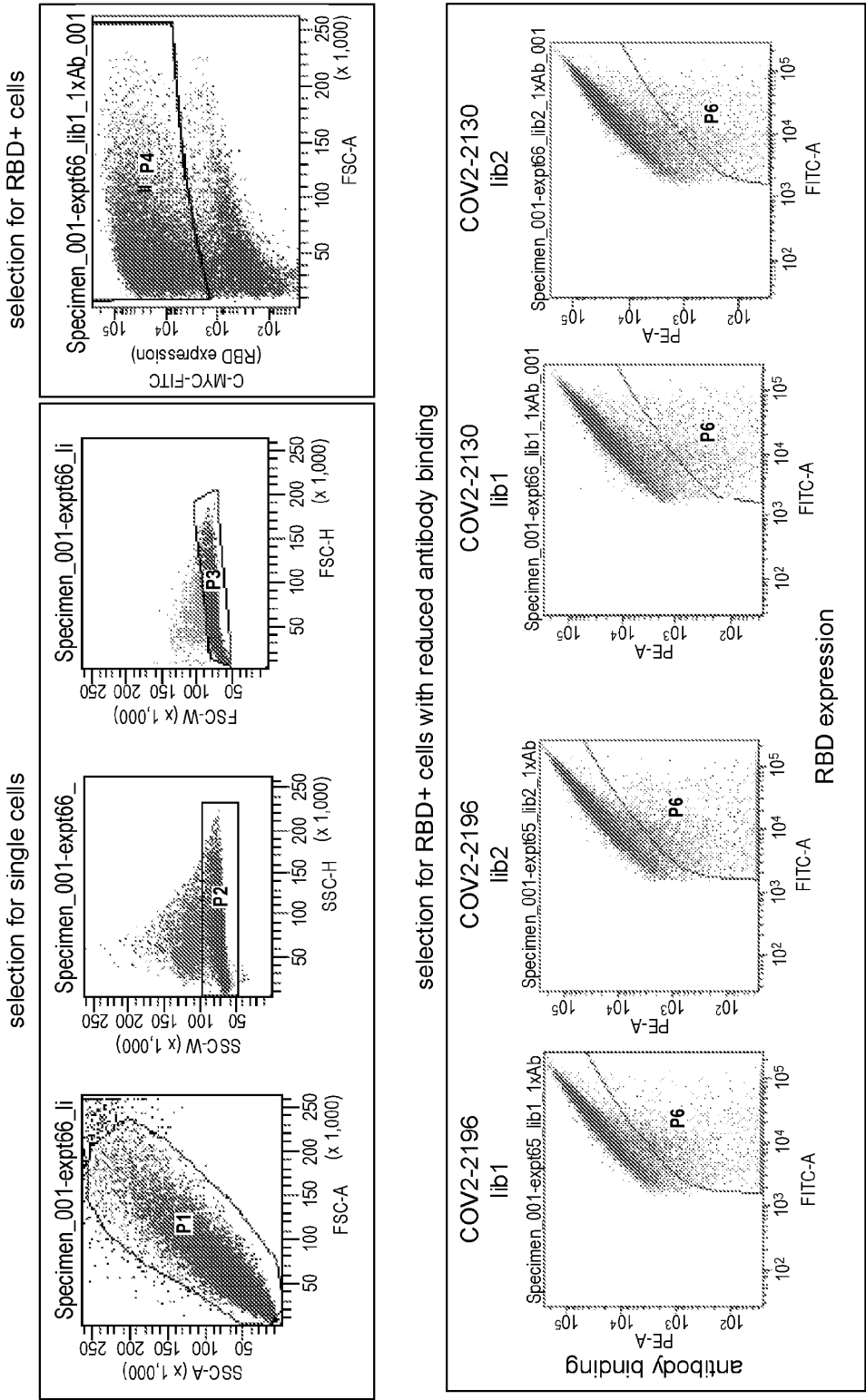


FIG. 18A

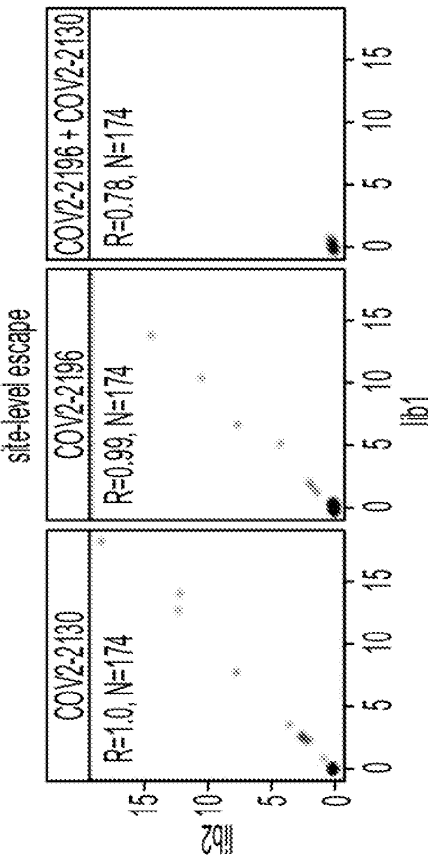


FIG. 18B

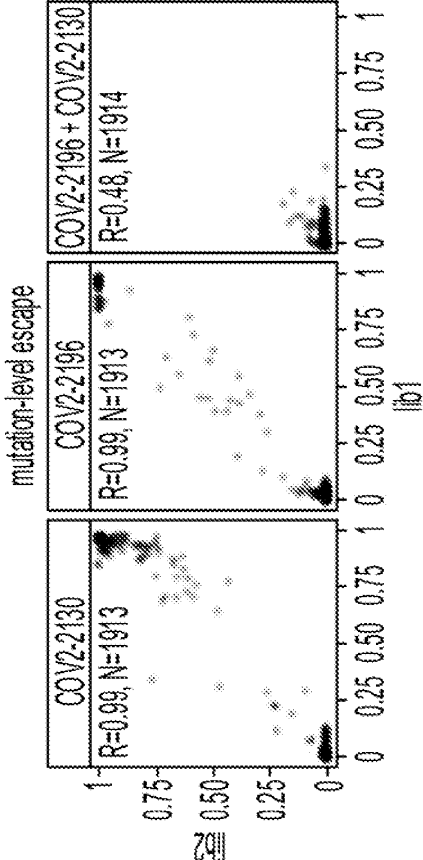
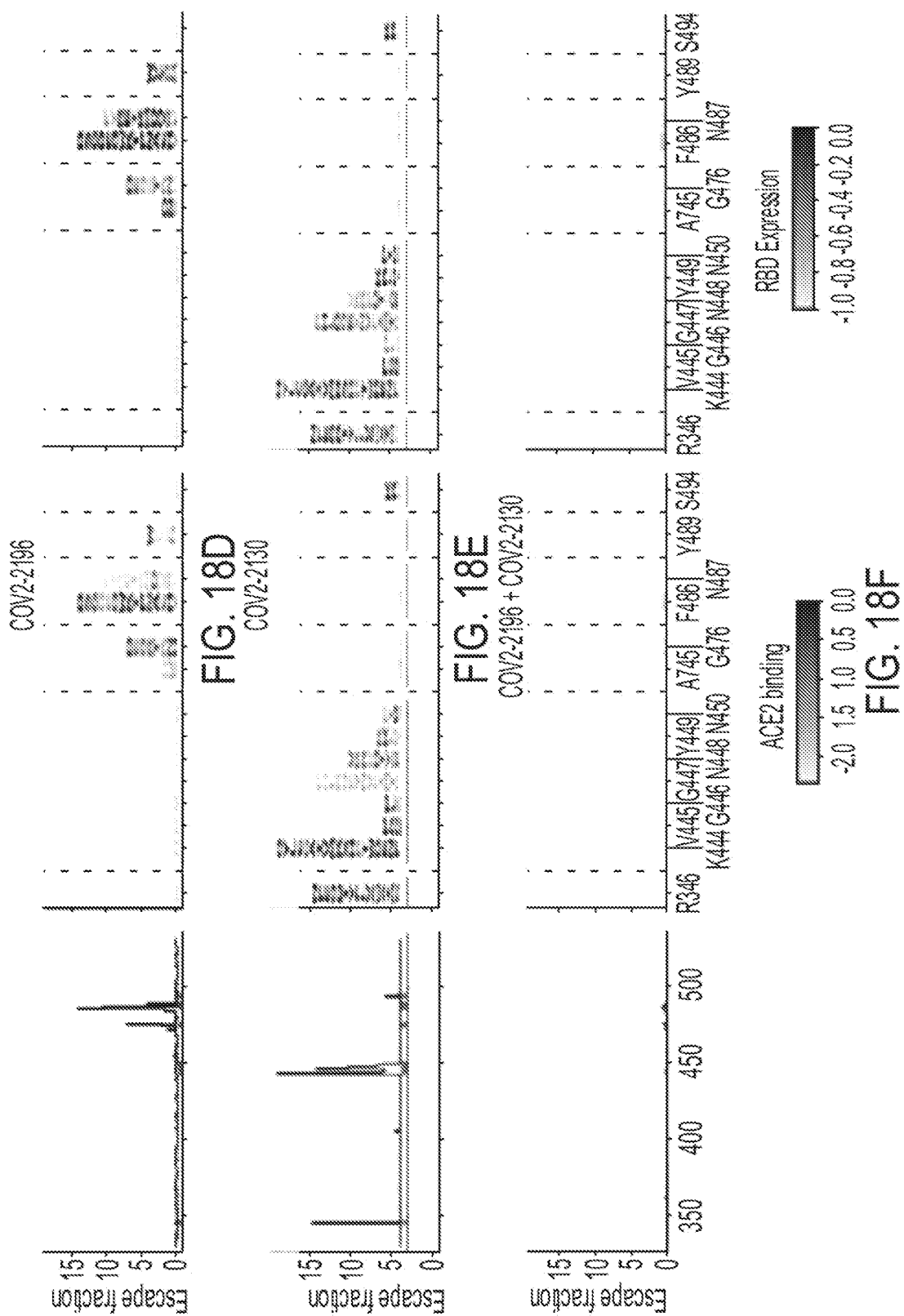


FIG. 18C



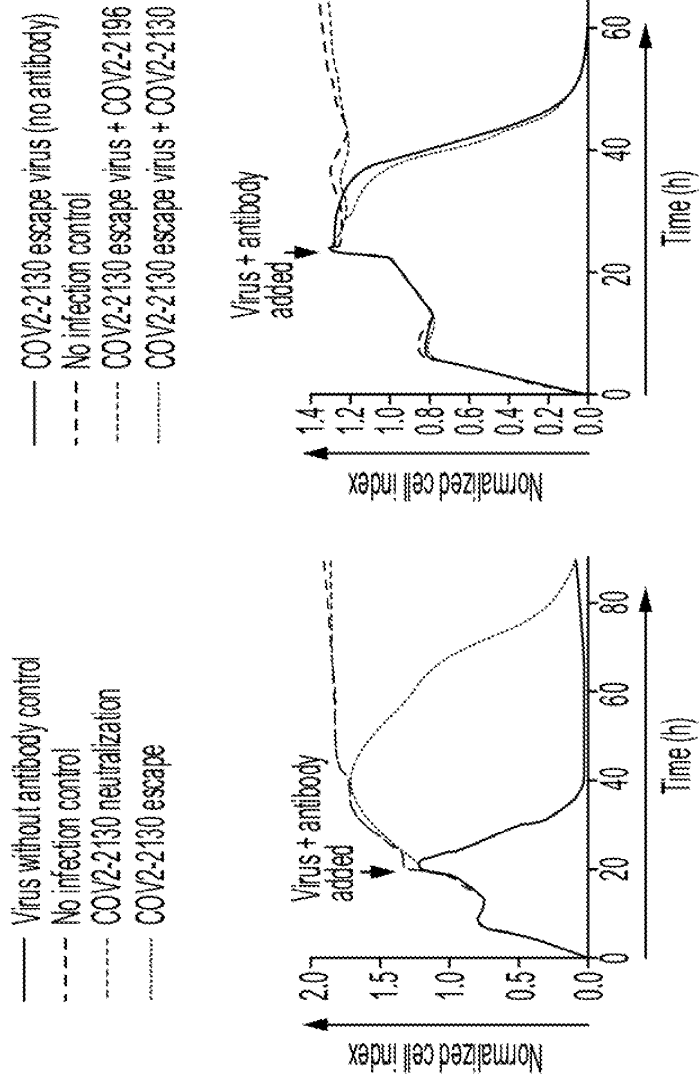


FIG. 18H

FIG. 18G

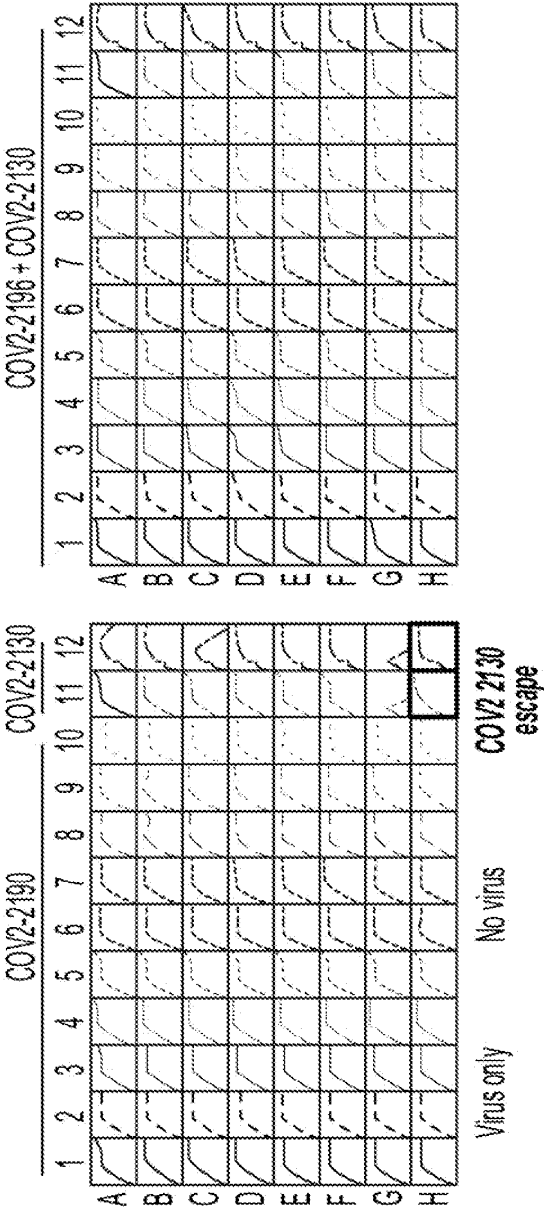


FIG. 18I

Method for serial passaging and testing of SARS-CoV-2 to select for mAb-resistant spike protein variants

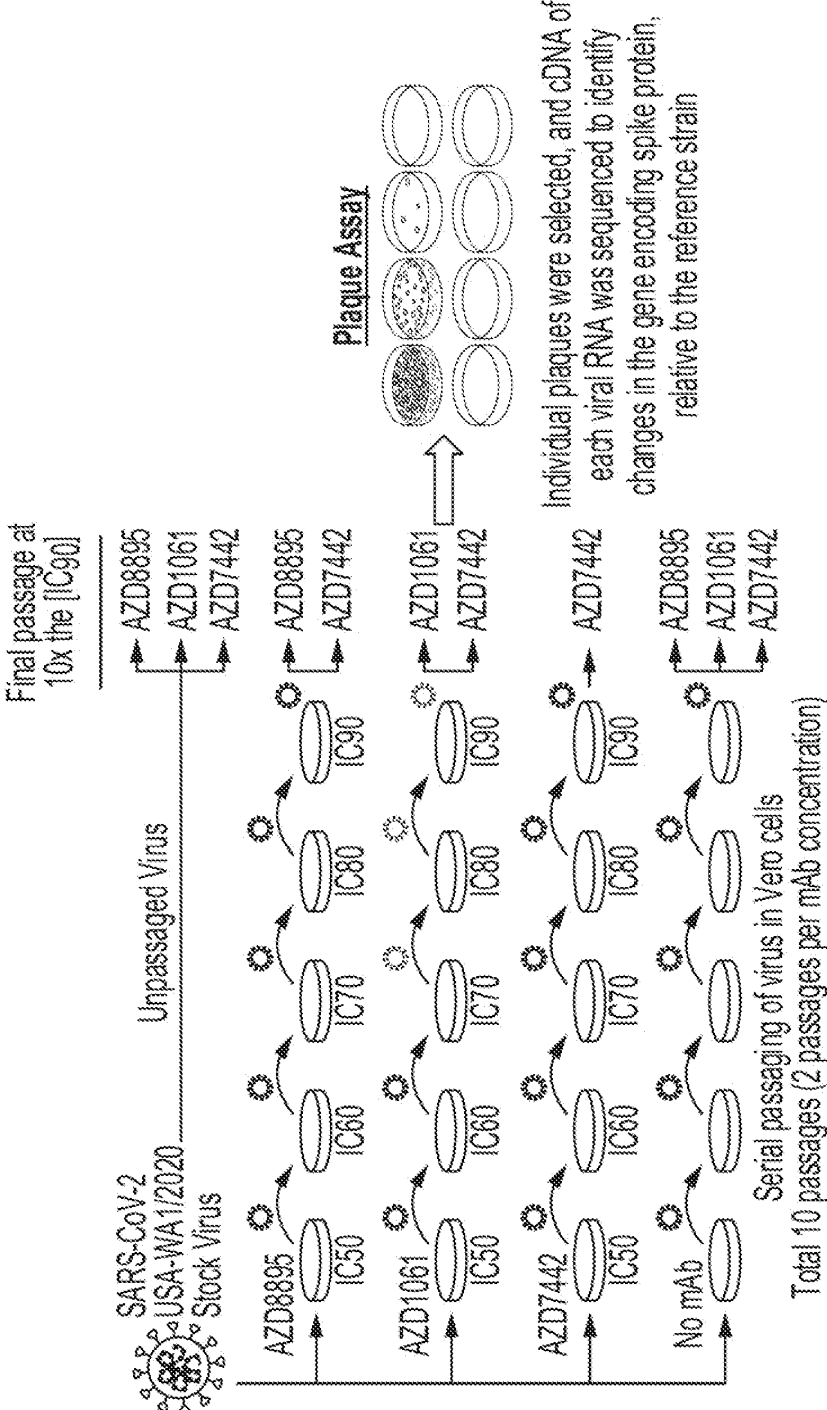


FIG. 19

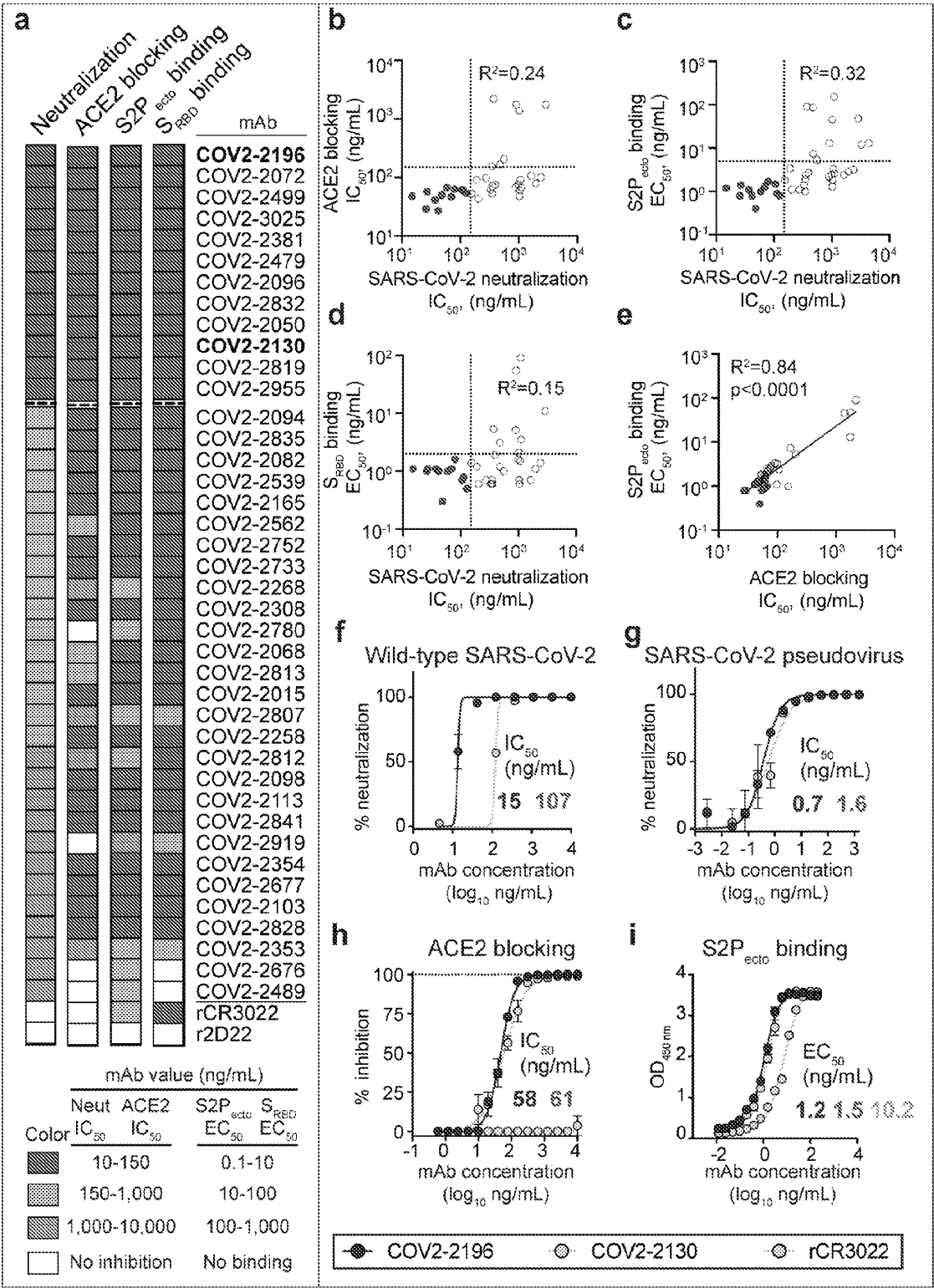


FIG. 20

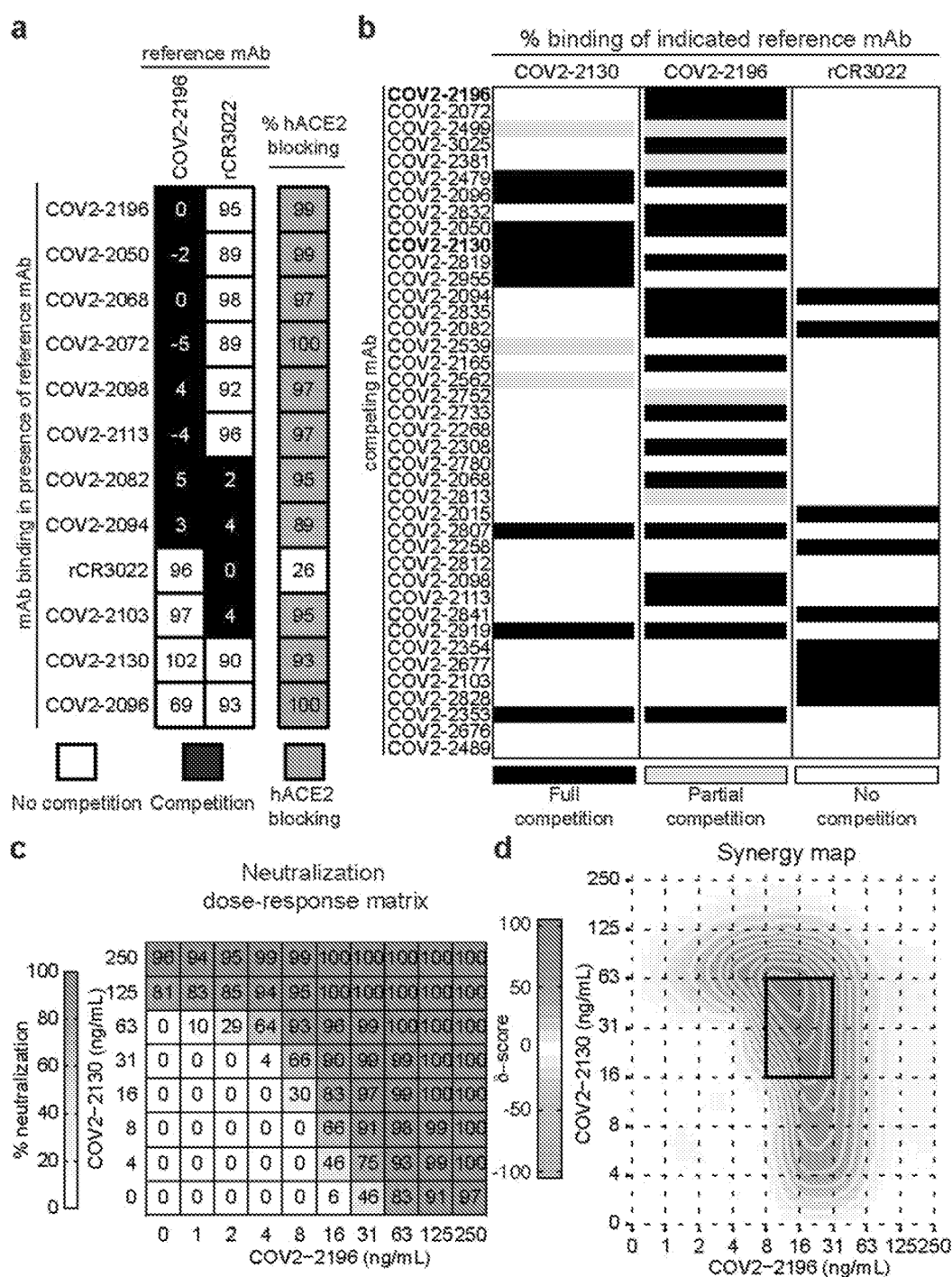


Fig. 21

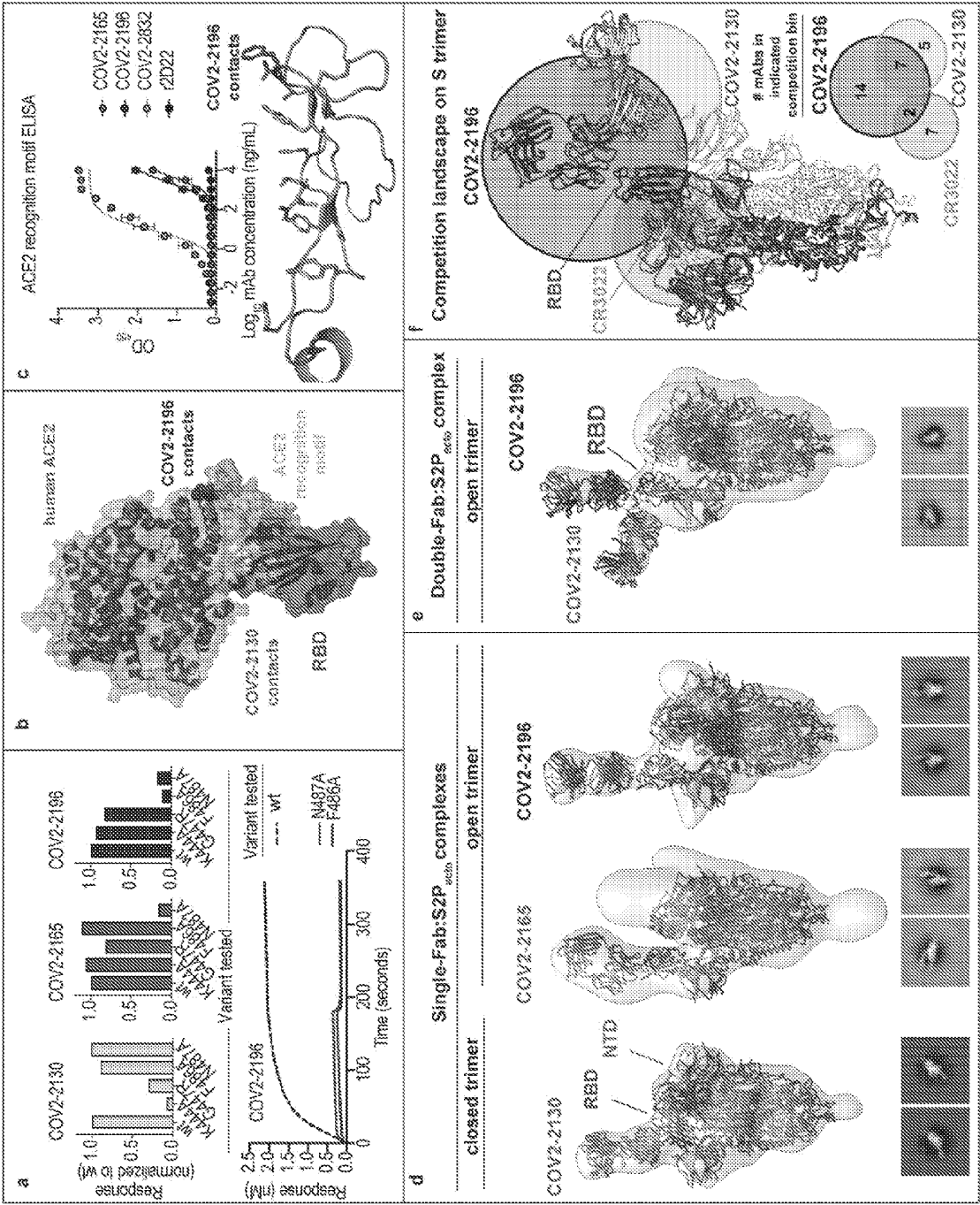


FIG. 22

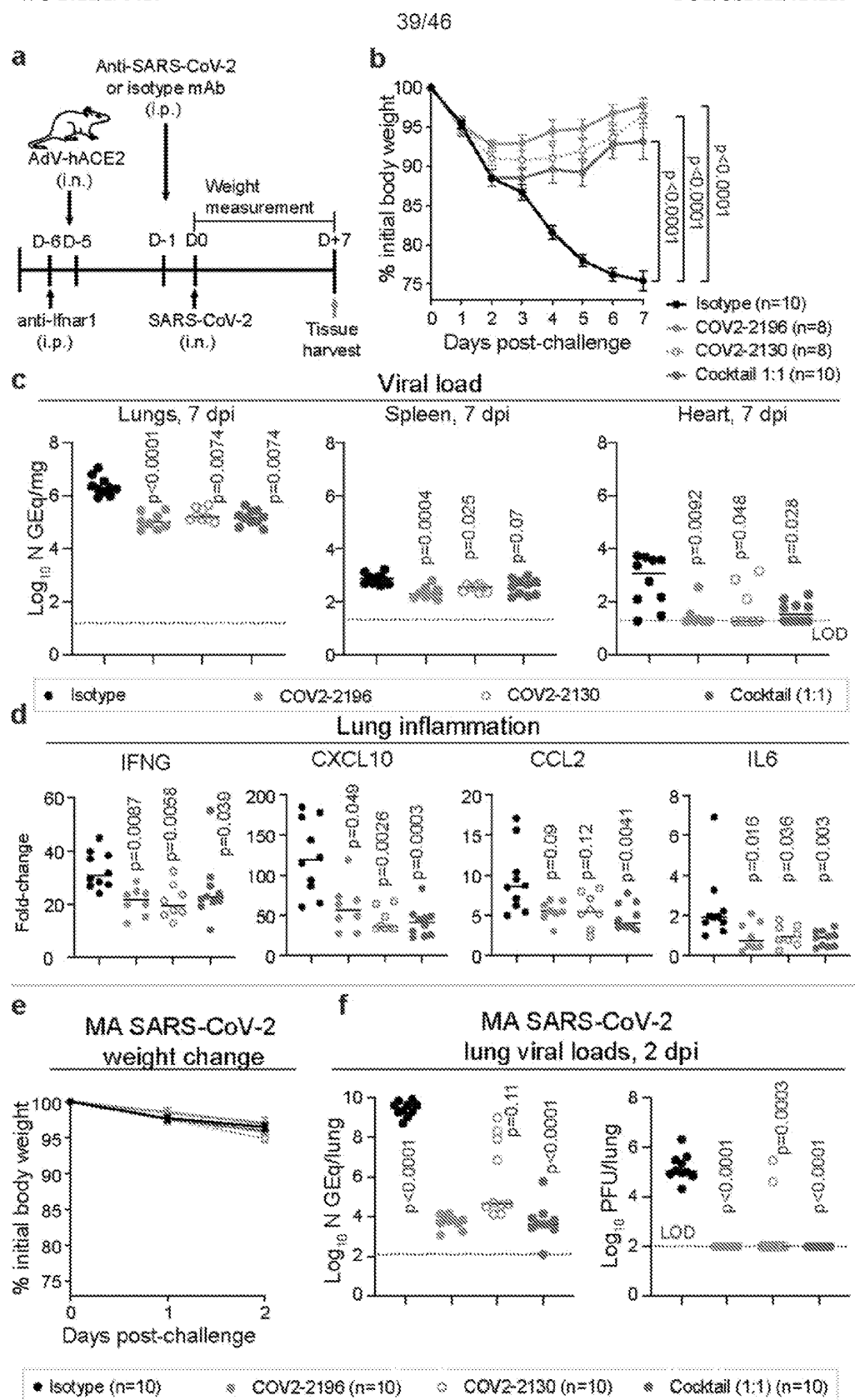


Fig. 23

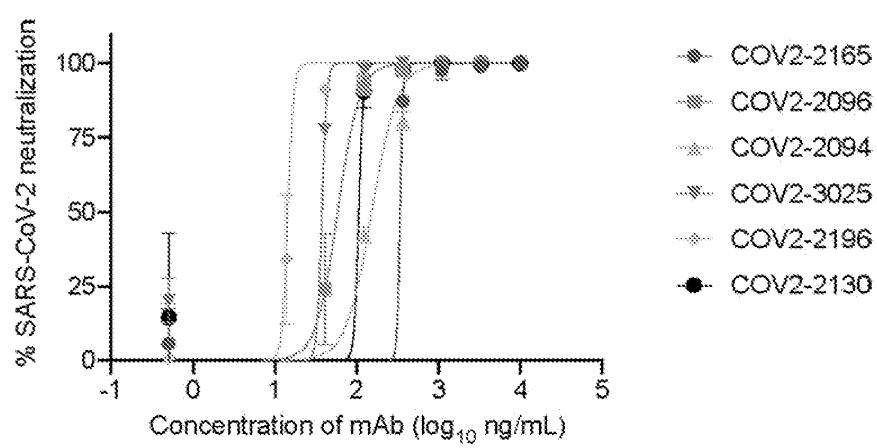


Fig. 24

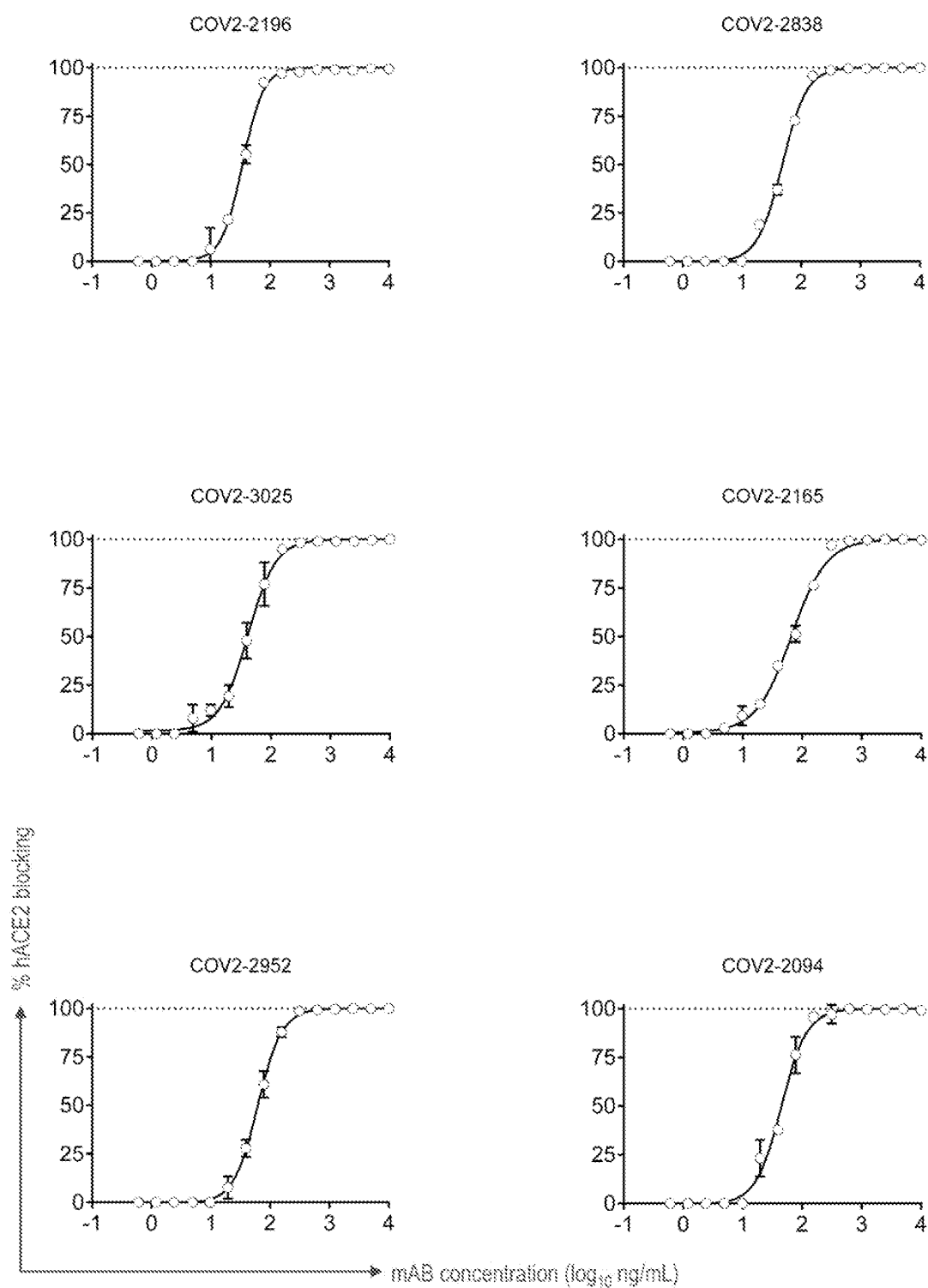


Fig. 25A

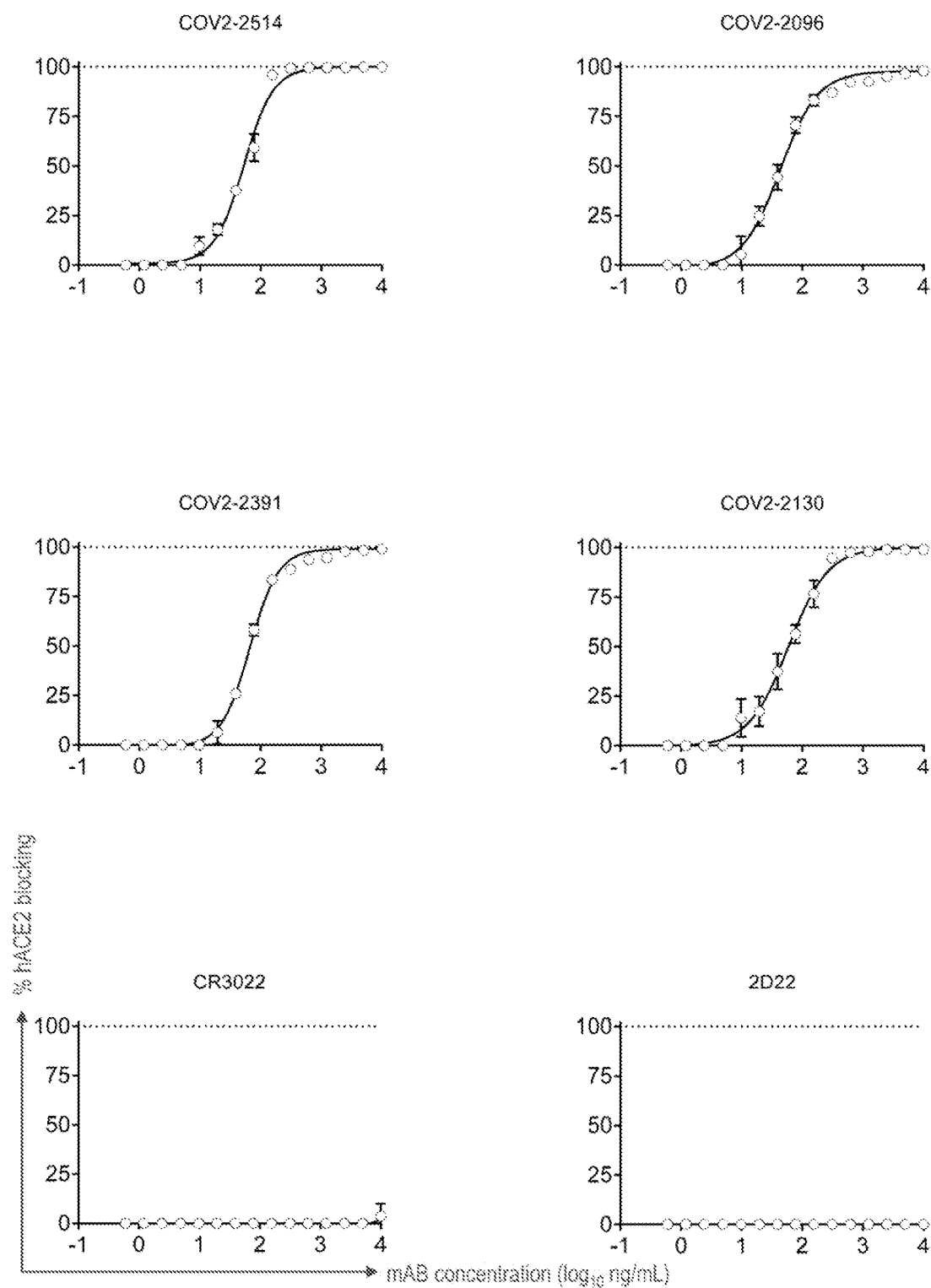


Fig. 25B

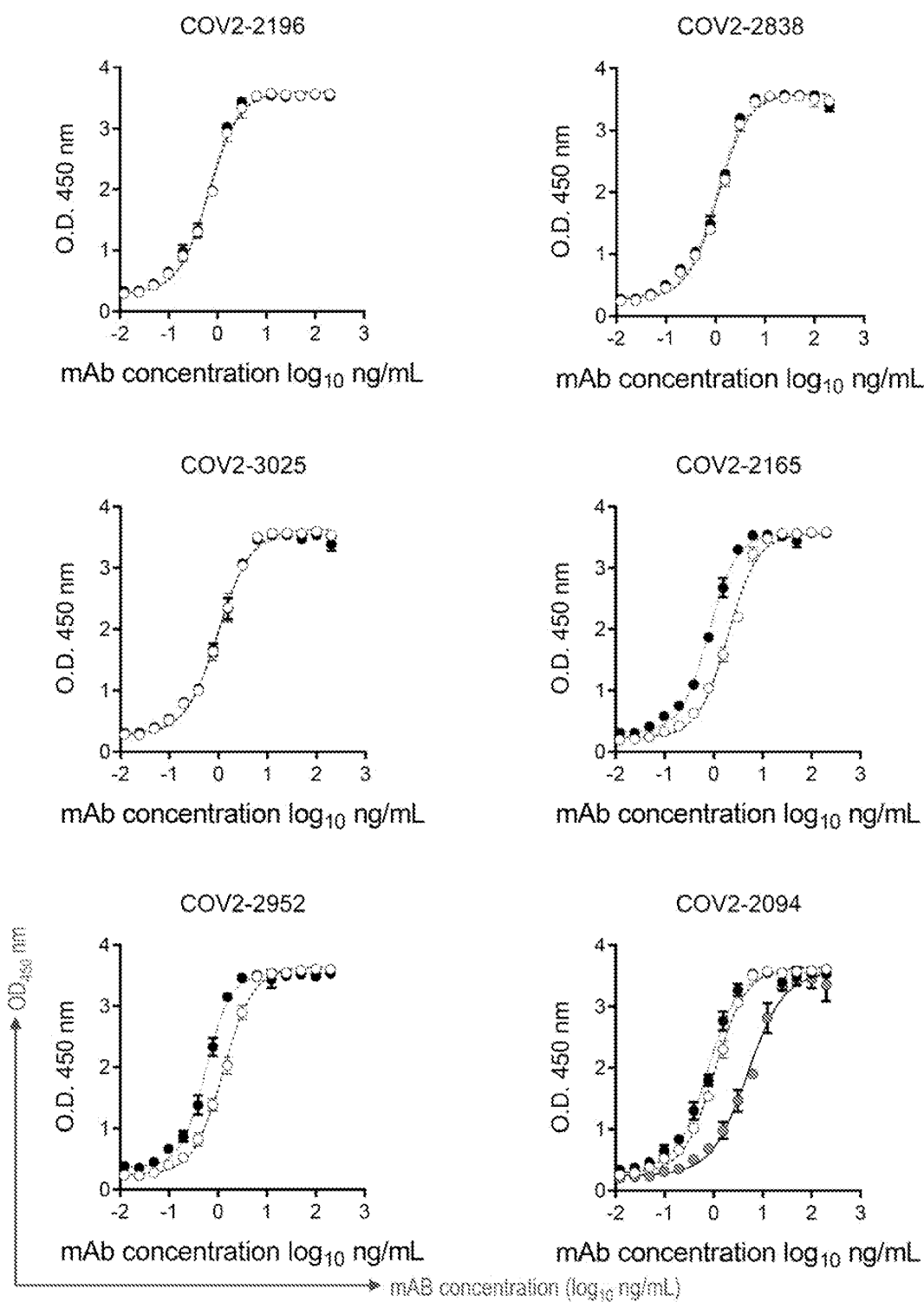


Fig. 26A

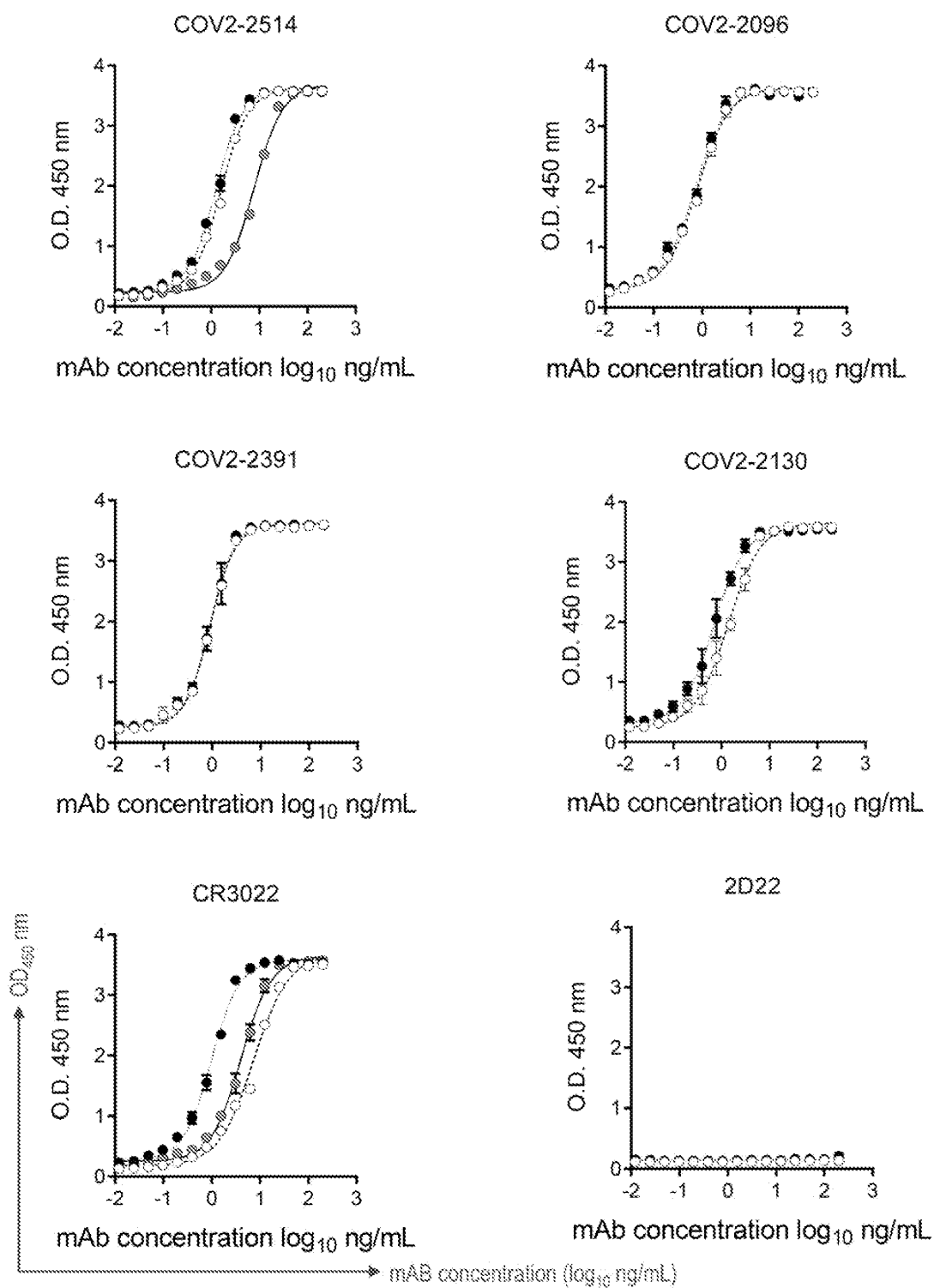


Fig. 26B

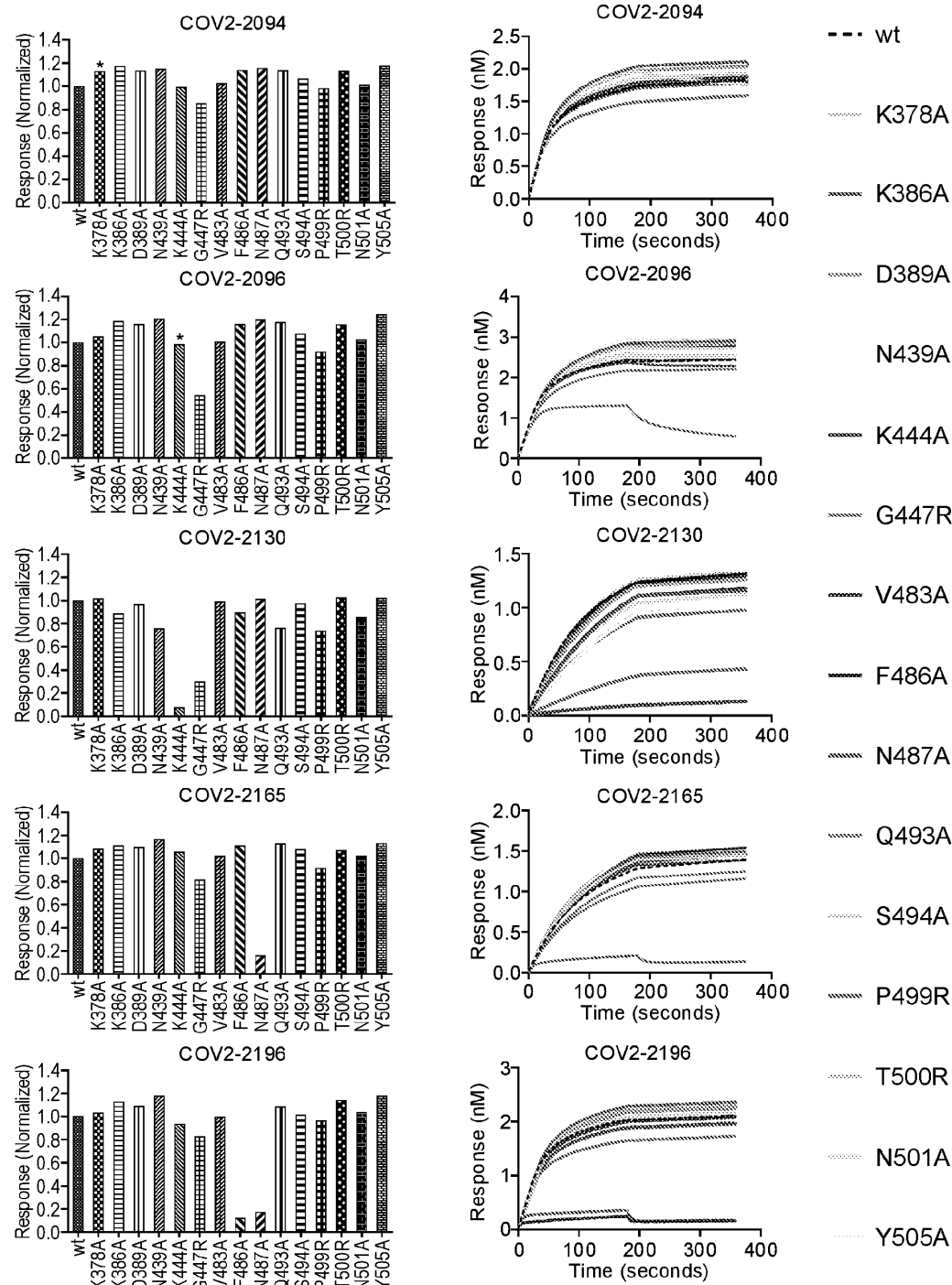


FIG. 27A

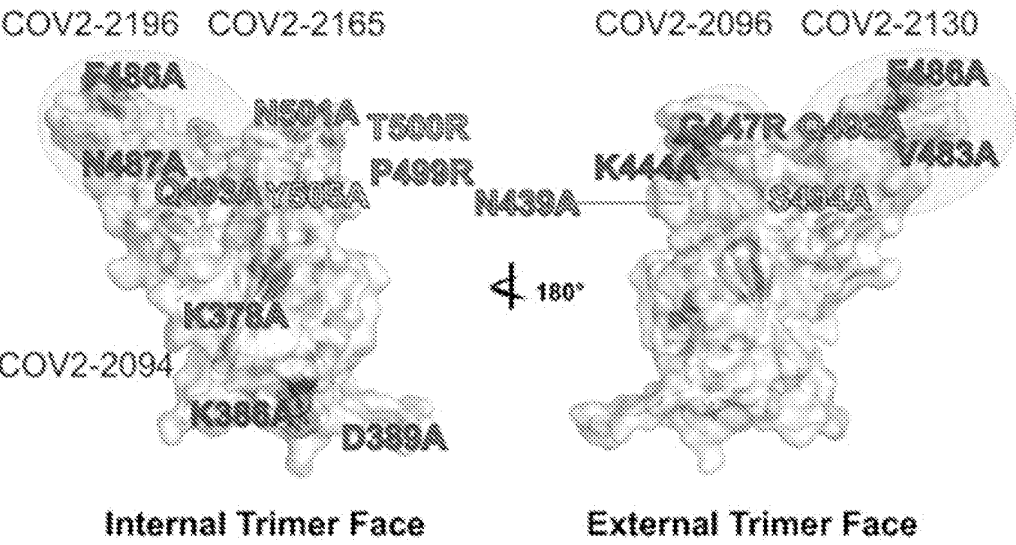


Fig. 27B