

1/20

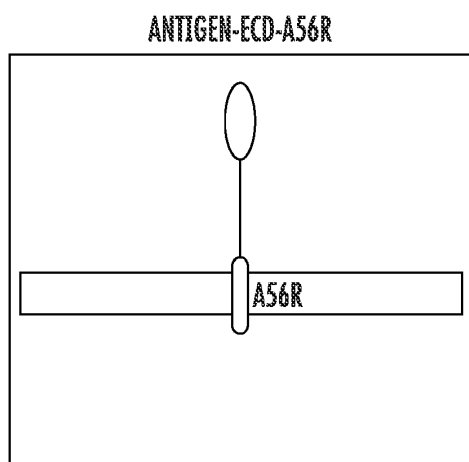


FIG. 1A

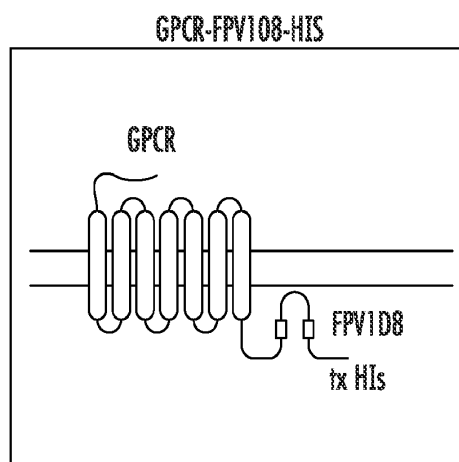


FIG. 1B

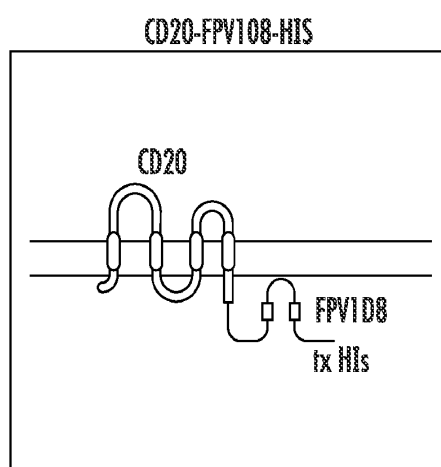


FIG. 1C

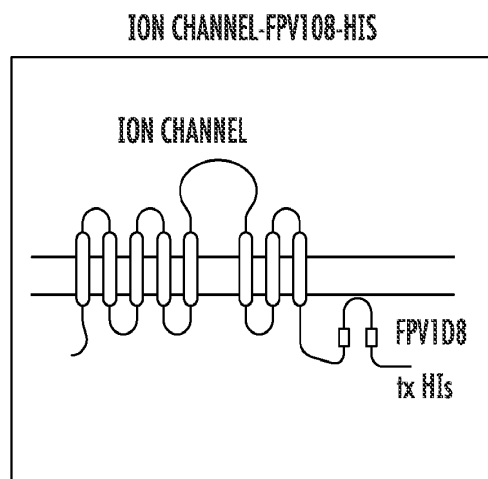


FIG. 1D

2/20

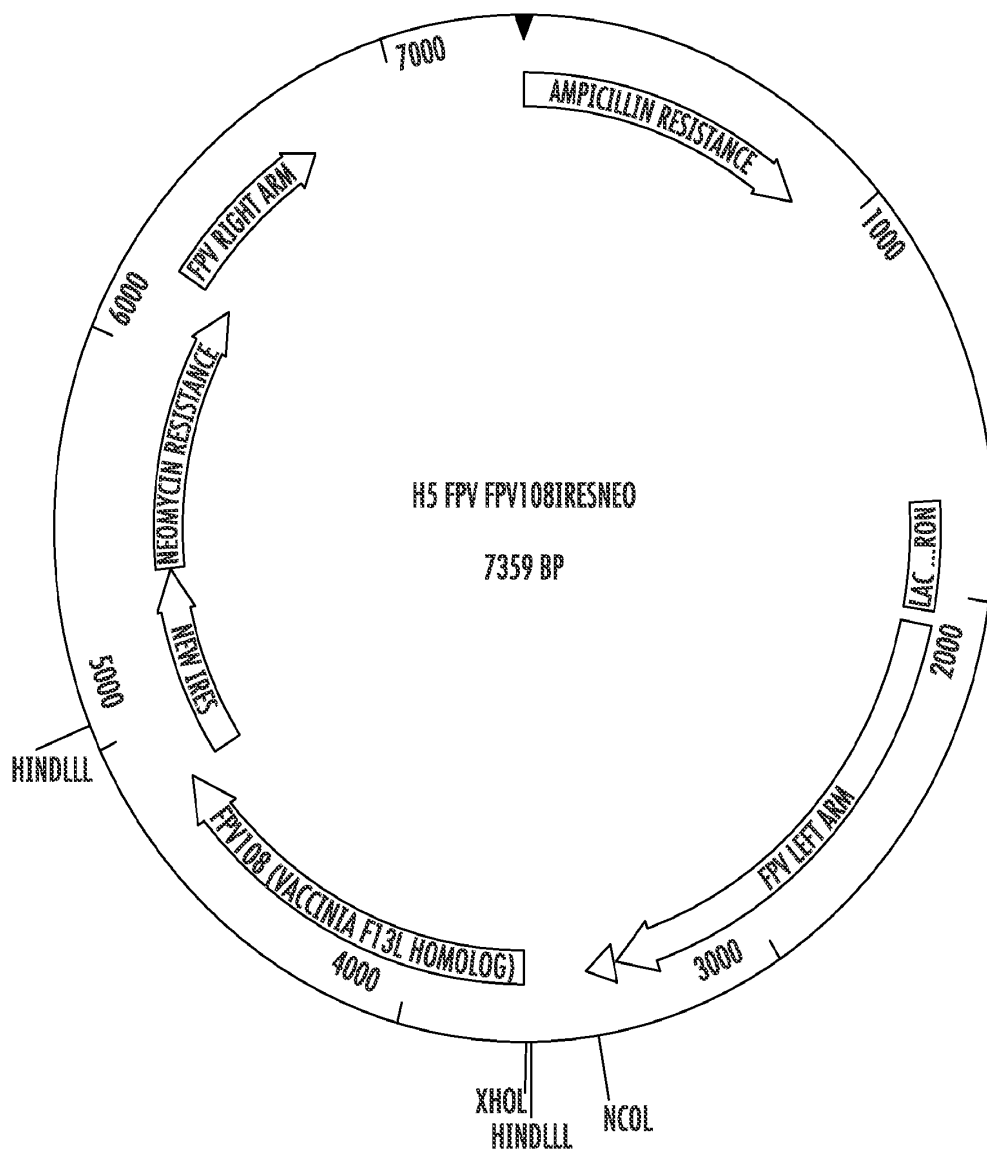
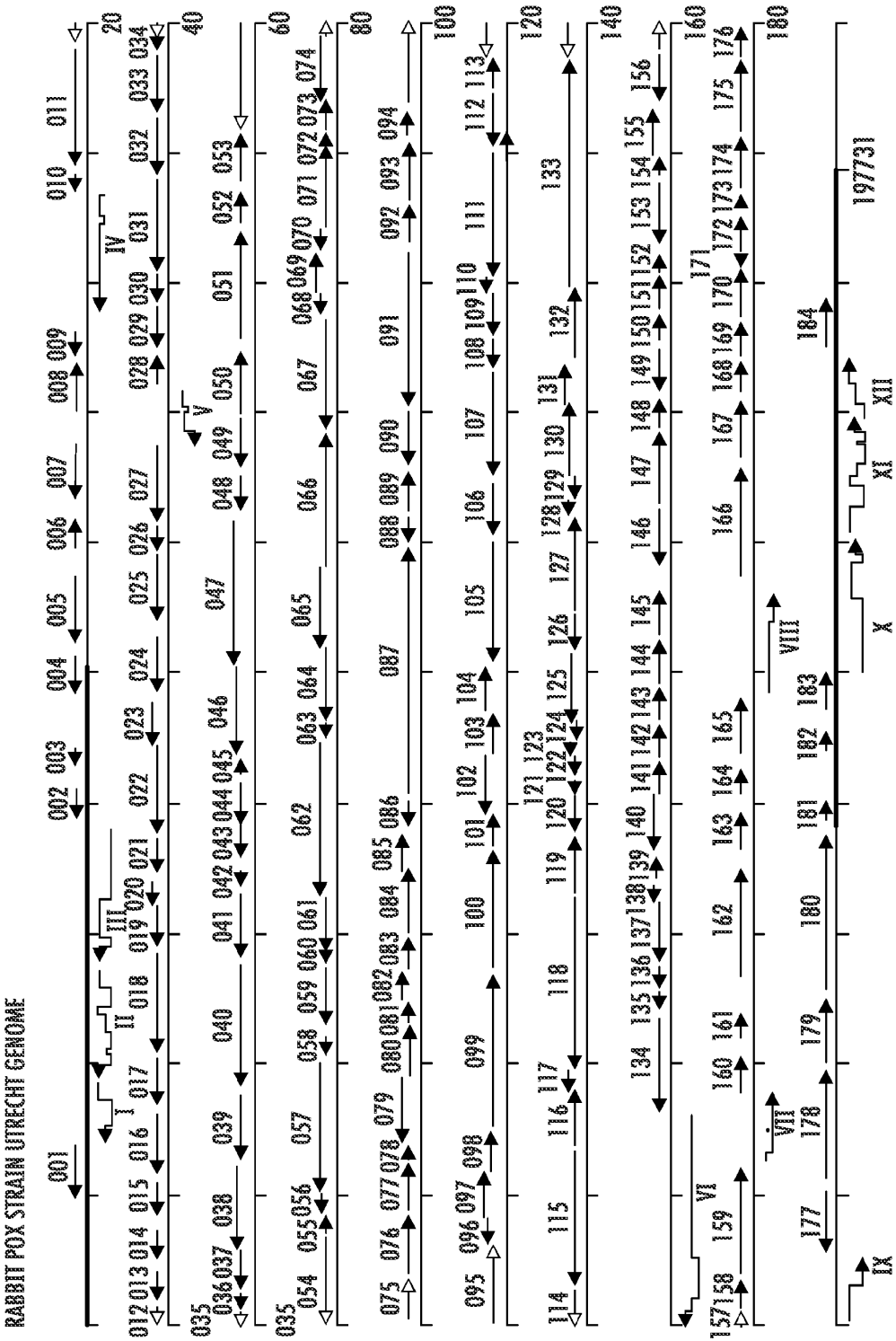


FIG. 2



4/20

ROBERT	10	20	30	40	50	60	70	80	90
COMMUNITY	MMFAKVFADAKGALVETTFEMNDEA-GHITTEGHEHITLAKVYVYTABEGGHFLGTTAGALLFGKKEAGEIDIKITVILDEAGKAMLGELQGHFF								
VF13L - SEQ ID+1	MMFAKVFADAKGALVETTFEMNDEA-GHITTEGHEHITLAKVYVYTABEGGHFLGTTAGALLFGKKEAGEIDIKITVILDEAGKAMLGELQGHFF								
FPV1D0 - SEQ ID+2	MMFAKVFADAKGALVETTFEMNDEA-GHITTEGHEHITLAKVYVYTABEGGHFLGTTAGALLFGKKEAGEIDIKITVILDEAGKAMLGELQGHFF								
FAPV041 - SEQ ID+3	MMFAKVFADAKGALVETTFEMNDEA-GHITTEGHEHITLAKVYVYTABEGGHFLGTTAGALLFGKKEAGEIDIKITVILDEAGKAMLGELQGHFF								
SEQUENCE LOGO	40	20	30	40	50	60	70	80	90
REFER 2	0	10	20	30	40	50	60	70	80
ROBERT	110	120	130	140	150	160	170	180	190
COMMUNITY	DIMFTTVMIDKKNVGLLLGGFWBDDGEGVGMAGFTGGGHIITKTLGVYDYPPLATGLRRRREDTEKAFNGAKMBWMLCBAGGLPVBTAHYHKMPI								
VF13L - SEQ ID+1	DIMFTTVMIDKKNVGLLLGGFWBDDGEGVGMAGFTGGGHIITKTLGVYDYPPLATGLRRRREDTEKAFNGAKMBWMLCBAGGLPVBTAHYHKMPI								
FPV1D0 - SEQ ID+2	DIMFTTVMIDKKNVGLLLGGFWBDDGEGVGMAGFTGGGHIITKTLGVYDYPPLATGLRRRREDTEKAFNGAKMBWMLCBAGGLPVBTAHYHKMPI								
FAPV041 - SEQ ID+3	DIMFTTVMIDKKNVGLLLGGFWBDDGEGVGMAGFTGGGHIITKTLGVYDYPPLATGLRRRREDTEKAFNGAKMBWMLCBAGGLPVBTAHYHKMPI								
SEQUENCE LOGO	40	20	30	40	50	60	70	80	90
REFER 2	0	110	120	130	140	150	160	170	180
ROBERT	210	220	230	240	250	260	270	280	290
COMMUNITY	GGVFFTDSPHLLGVDAIDIDVVIDKLSAKTSIDIEHLAIVPTIRLDQKSVWPDITWSTIGAAINQVKTIRLLVONWKNVSNATAASIDALCVC								
VF13L - SEQ ID+1	GGVFFTDSPHLLGVDAIDIDVVIDKLSAKTSIDIEHLAIVPTIRLDQKSVWPDITWSTIGAAINQVKTIRLLVONWKNVSNATAASIDALCVC								
FPV1D0 - SEQ ID+2	GGVFFTDSPHLLGVDAIDIDVVIDKLSAKTSIDIEHLAIVPTIRLDQKSVWPDITWSTIGAAINQVKTIRLLVONWKNVSNATAASIDALCVC								
FAPV041 - SEQ ID+3	GGVFFTDSPHLLGVDAIDIDVVIDKLSAKTSIDIEHLAIVPTIRLDQKSVWPDITWSTIGAAINQVKTIRLLVONWKNVSNATAASIDALCVC								
SEQUENCE LOGO	40	20	30	40	50	60	70	80	90
REFER 2	0	210	220	230	240	250	260	270	280
ROBERT	310	320	330	340	350	360	370	380	390
COMMUNITY	H-DLSVKVFTIDK-----KTKLLVFFGVTHITSADHEDOTHYONGHVFVSEKSIDKQLVSGAKKIFGADWVSAHSKSKKI----								
VF13L - SEQ ID+1	H-DLSVKVFTIDK-----KTKLLVFFGVTHITSADHEDOTHYONGHVFVSEKSIDKQLVSGAKKIFGADWVSAHSKSKKI----								
FPV1D0 - SEQ ID+2	H-DLSVKVFTIDK-----KTKLLVFFGVTHITSADHEDOTHYONGHVFVSEKSIDKQLVSGAKKIFGADWVSAHSKSKKI----								
FAPV041 - SEQ ID+3	H-DLSVKVFTIDK-----KTKLLVFFGVTHITSADHEDOTHYONGHVFVSEKSIDKQLVSGAKKIFGADWVSAHSKSKKI----								
SEQUENCE LOGO	40	20	30	40	50	60	70	80	90
REFER 2	0	310	320	330	340	350	360	370	380

FIG. 4

SUBSTITUTE SHEET (RULE 26)

	VVF13L - SEQ ID#1	FPV108 - SEQ ID#2	RPXV041 - SEQ ID#3	
				99.7
				37.6
	VVF13L - SEQ ID#1	FPV108 - SEQ ID#2	RPXV041 - SEQ ID#3	
				37.6
				99.7
	VVF13L - SEQ ID#1	FPV108 - SEQ ID#2	RPXV041 - SEQ ID#3	
				37.6
				99.7

FIG. 5

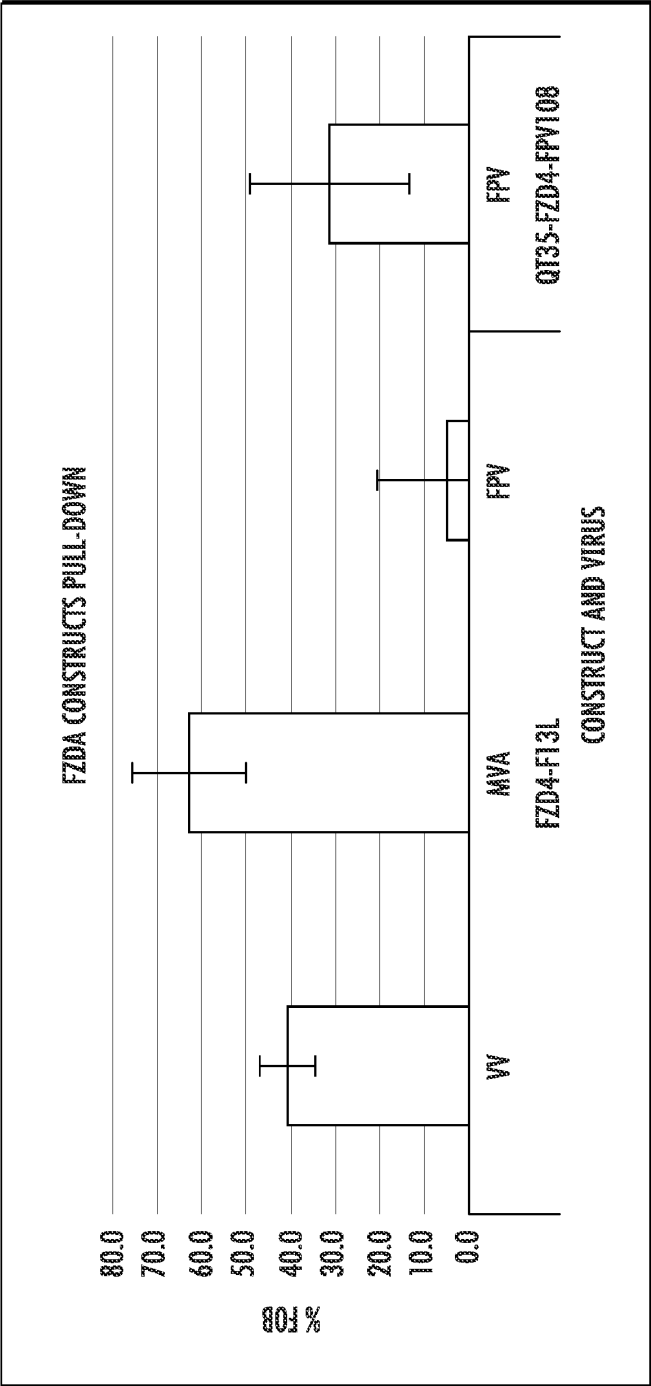


FIG. 6

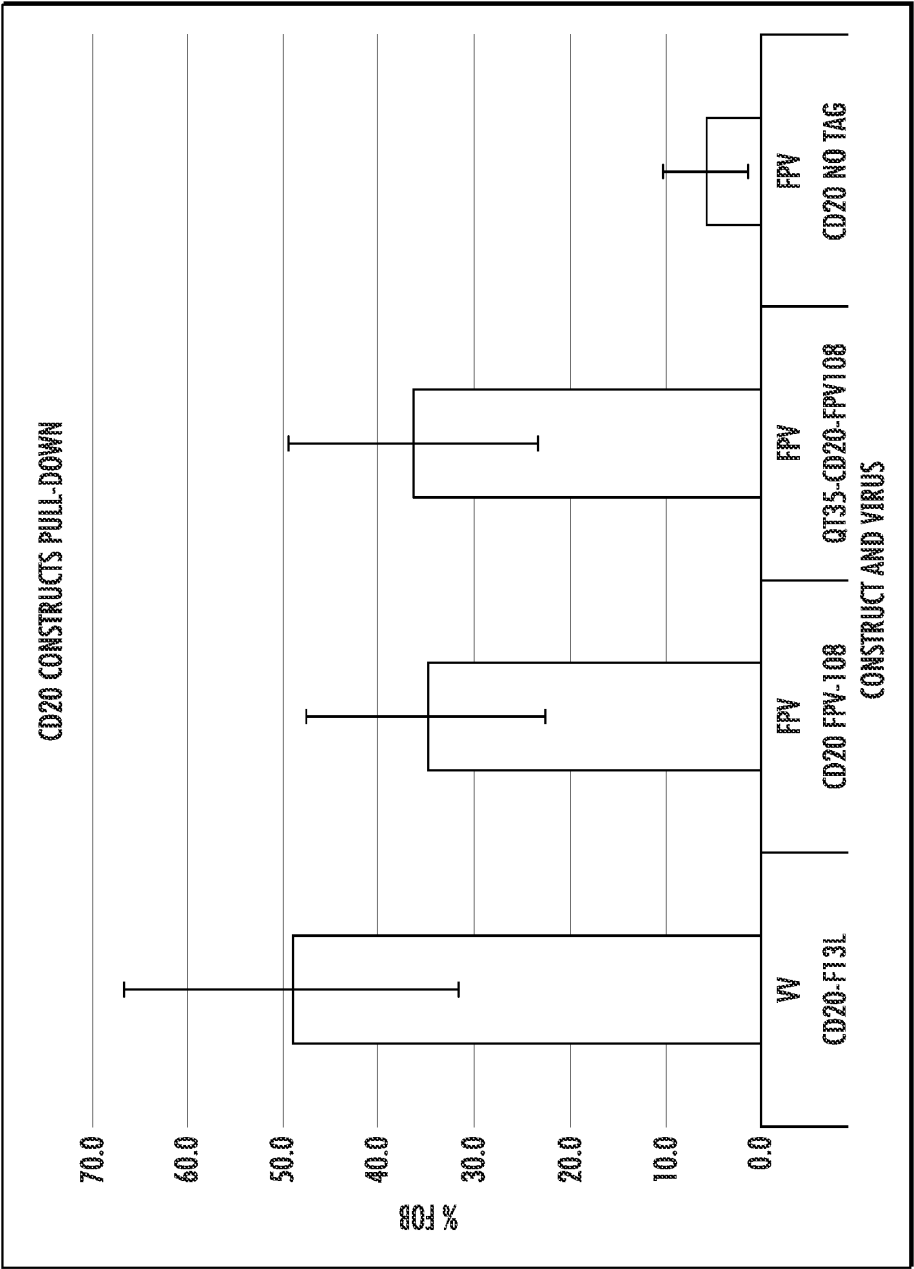
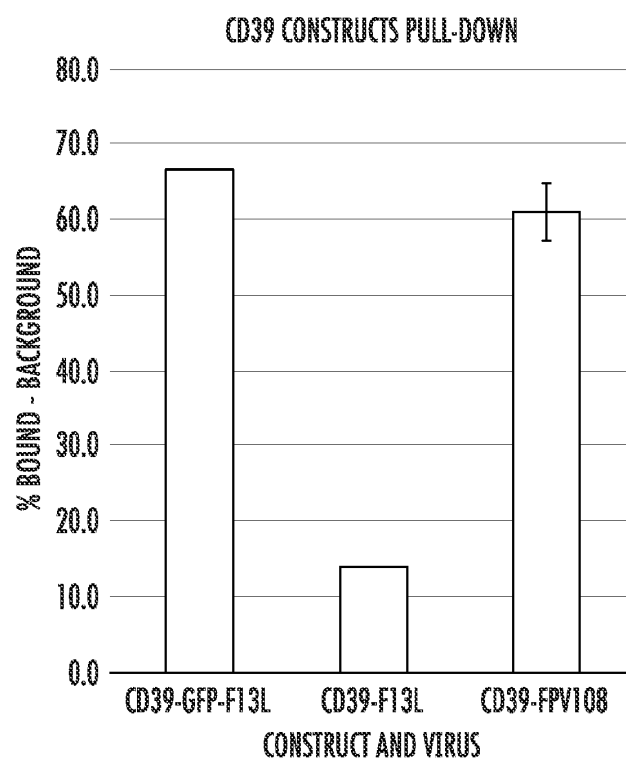


FIG. 7

8/20

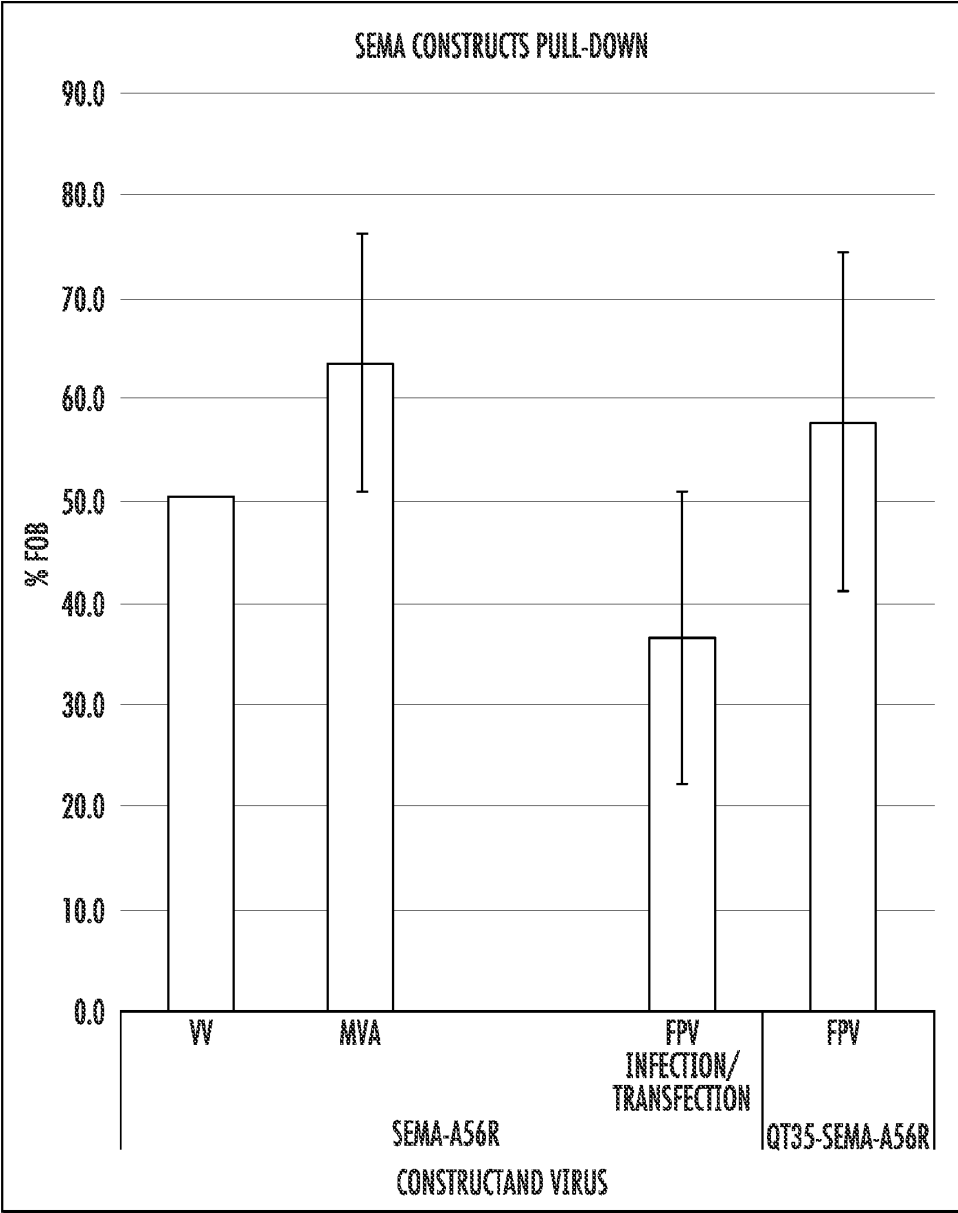


LANE:

1. VACCINIA WITH CD39-F13L
2. FPV WITH CD39-F13L
3. FPV WITH CD39-FPV108

FIG. 8

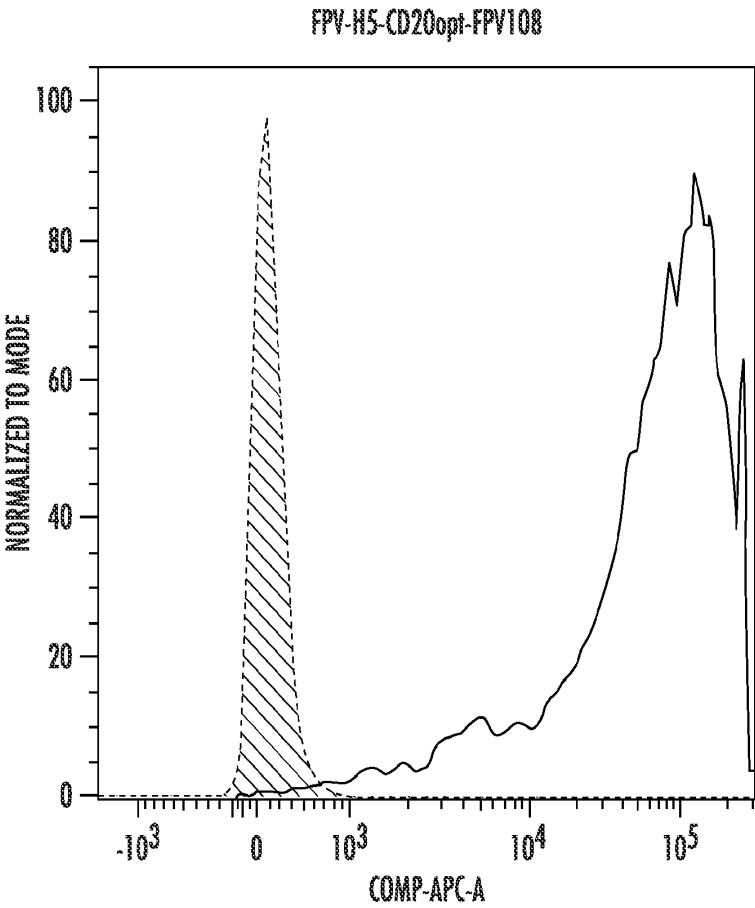
9/20



LANE 1: VACCINIA WITH SEMA-A56R
LANE 2: MVA WITH SEMA-A56R
LANE 3: FPV PSEUDOTYPED BY INFECTED/TRANSFECTION WITH TRANSFER PLASMID
LANE 4: FPV PSEUDOTYPED USING QT35 CELLS TRANSFECTED WITH SEMA-A56R

FIG. 9

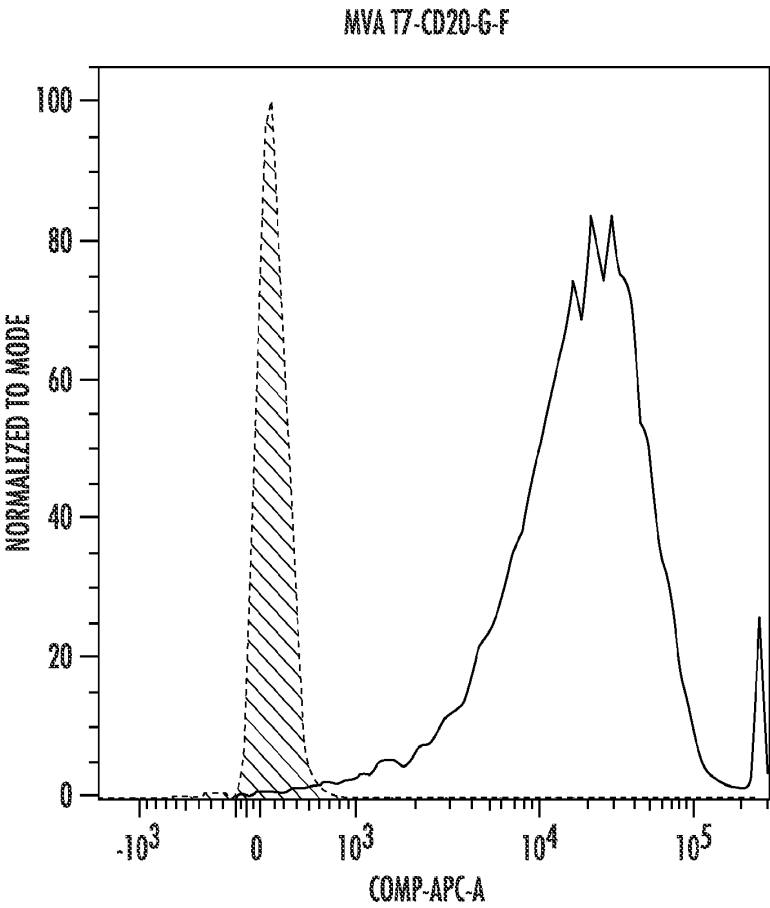
10/20



	SAMPLE NAME	GEOMETRIC MEAN : COMP-APC-A
☐	SPECIMEN_001_B3_B03_002.FCS	49480
☒	SPECIMEN_001_B2_B02_001.FCS	226

FIG. 10A

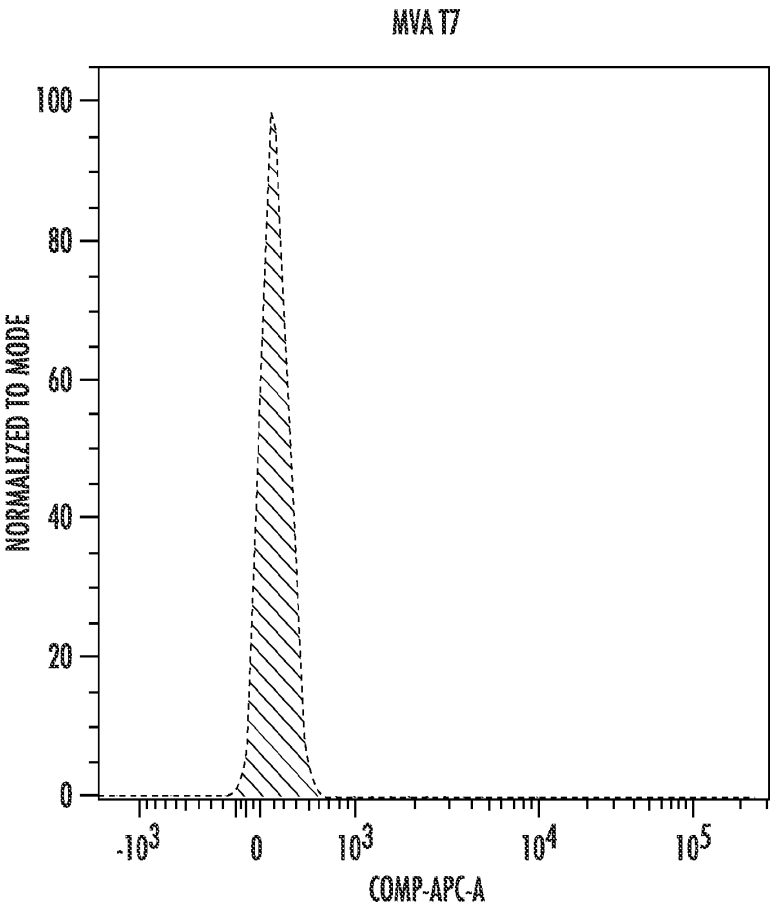
11/20



	SAMPLE NAME	GEOMETRIC MEAN : COMP-APC-A
☐	SPECIMEN_002_C3_C03_006.FCS	16242
☒	SPECIMEN_002_C2_C02_005.FCS	223

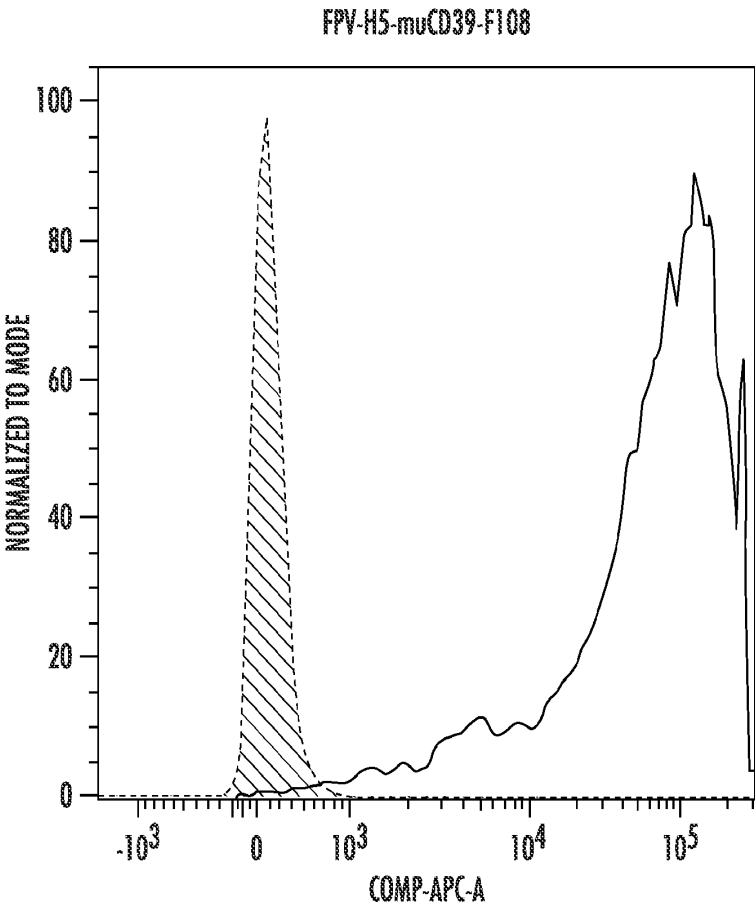
FIG. 10B

12/20



	SAMPLE NAME	GEOMETRIC MEAN : COMP-APC-A
☐	SPECIMEN__005_F3_F03_018.FCS	215
☒	SPECIMEN__005_F2_F02_017.FCS	222

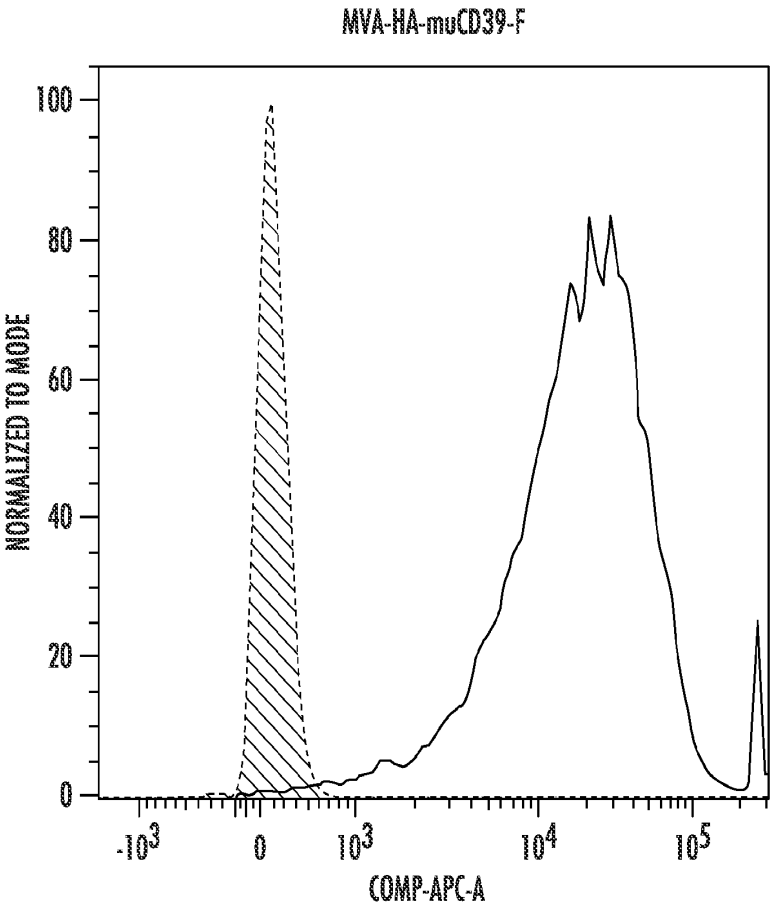
FIG. 10C



	SAMPLE NAME	GEOMETRIC MEAN : COMP-APC-A
☐	SPECIMEN_001_B3_B03_002.FCS	49480
☒	SPECIMEN_001_B2_B02_001.FCS	226

FIG. 11A

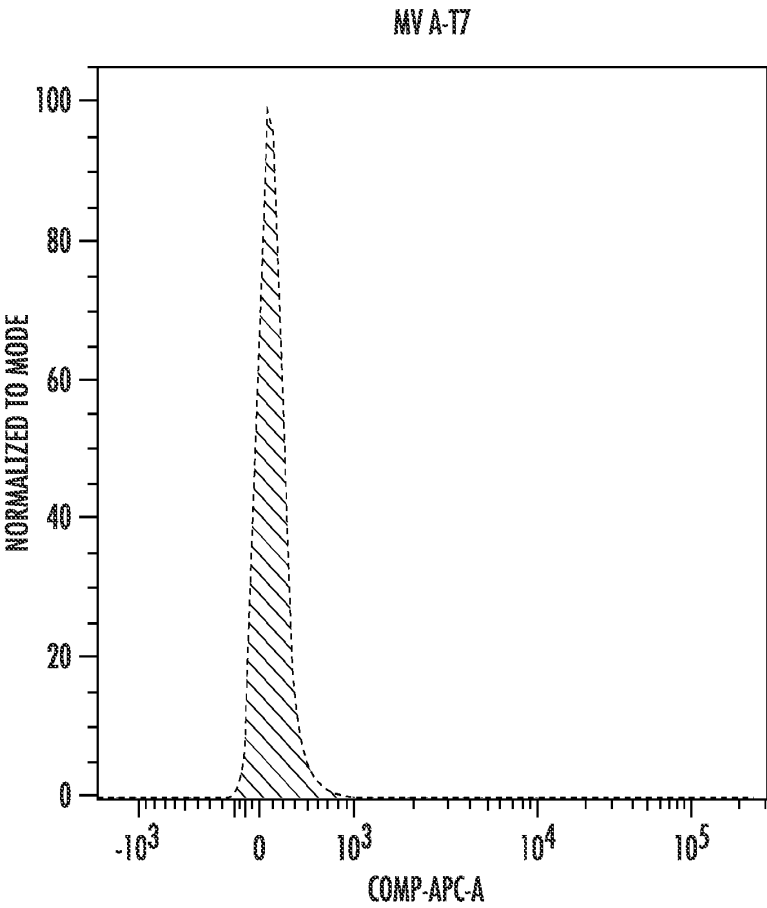
14/20



	SAMPLE NAME	GEOMETRIC MEAN : COMP-APC-A
☐	SPECIMEN_002_C3_C03_006.FCS	16242
☒	SPECIMEN_002_C2_C02_005.FCS	223

FIG. 11B

15/20



	SAMPLE NAME	GEOMETRIC MEAN : COMP-APC-A
☐	SPECIMEN_005_F3_F03_018.FCS	215
☒	SPECIMEN_005_F2_F02_017.FCS	222

FIG. 11C

16/20

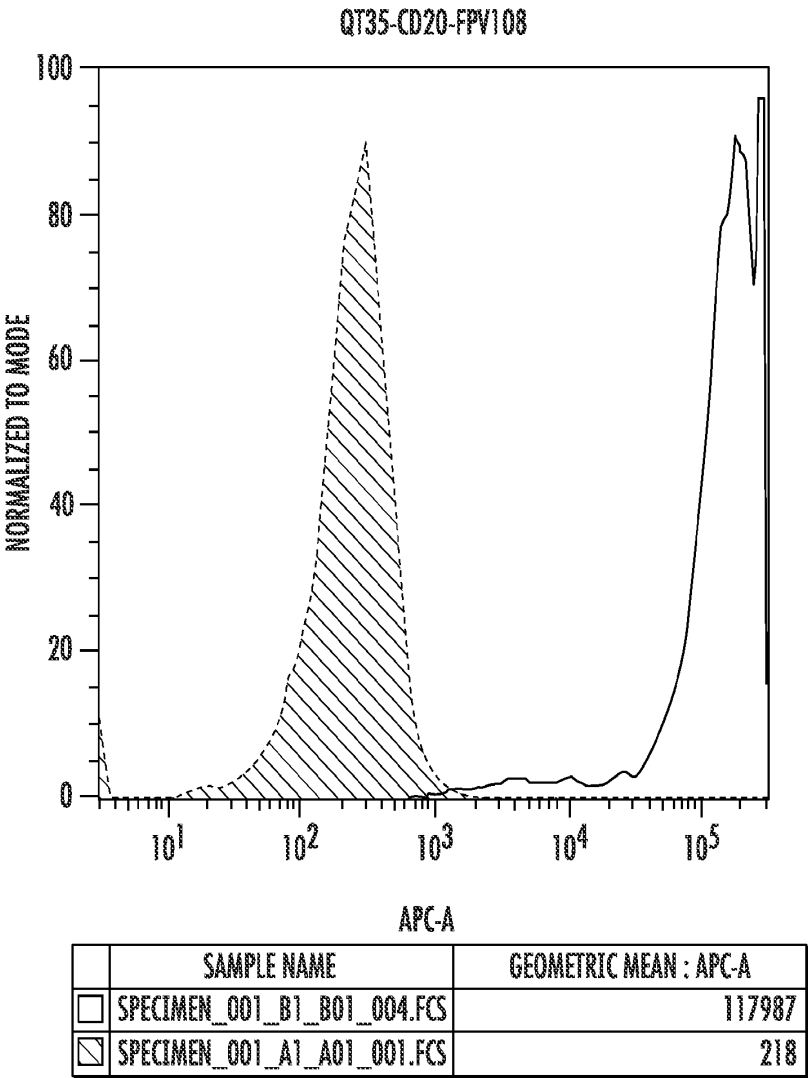


FIG. 12A

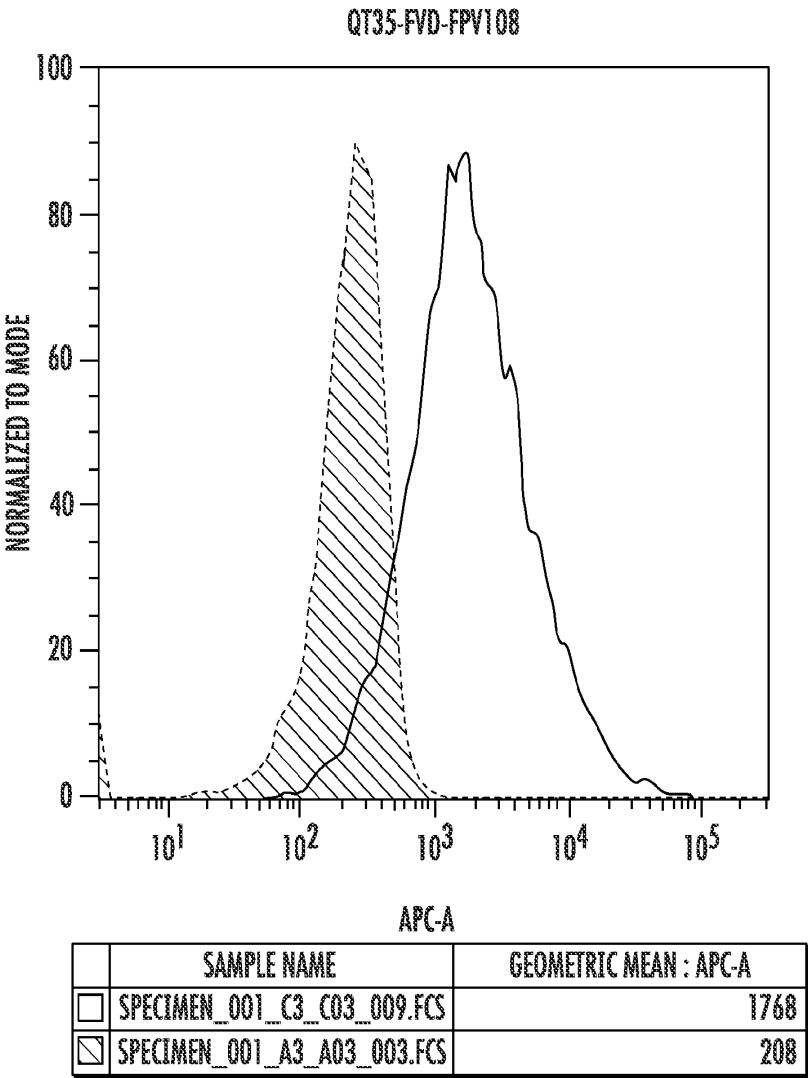
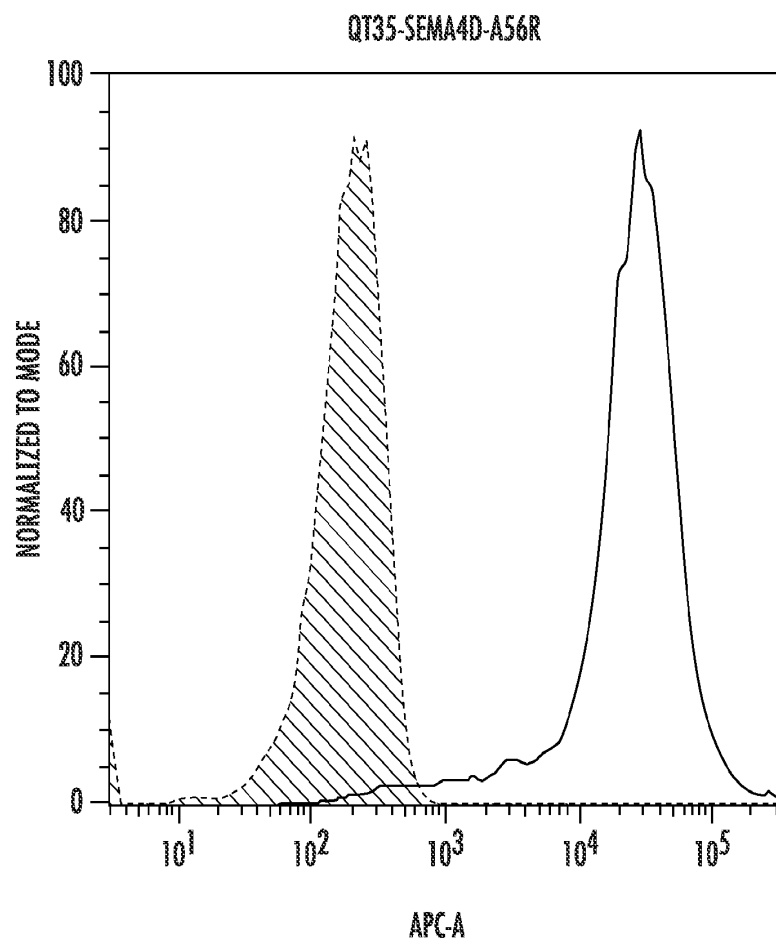


FIG. 12B

18/20



	SAMPLE NAME	GEOMETRIC MEAN : APC-A
☐	SPECIMEN_002_D2_D02_011.FCS	20224
☒	SPECIMEN_001_A2_A02_002.FCS	165

FIG. 12C

19/20

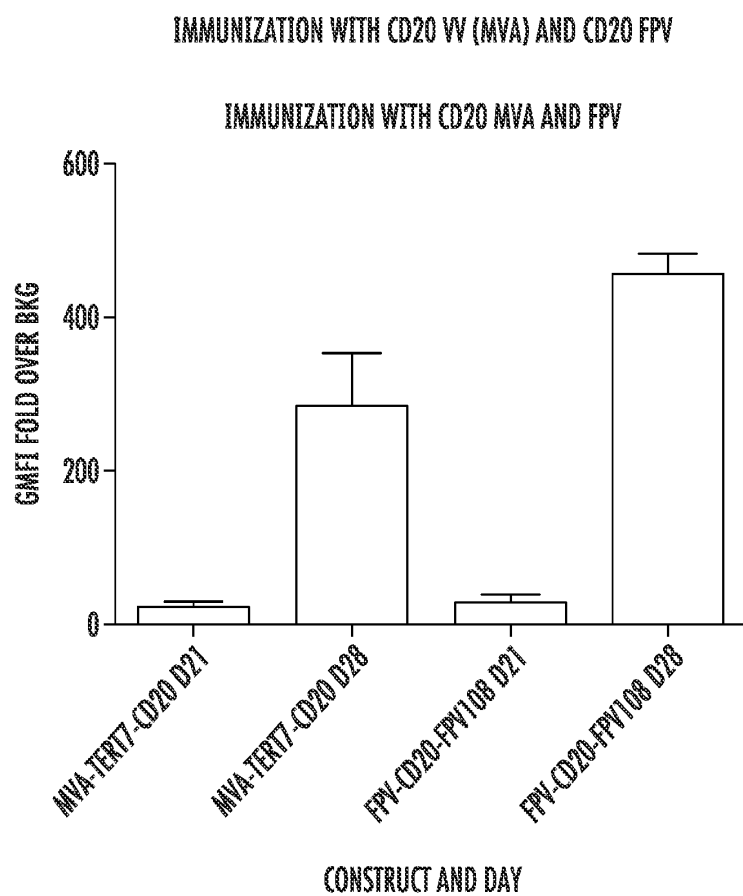


FIG. 13

MOUSE IMMUNIZED LIBRARY ANTI-CD20 ANTIBODIES		
mAb NUMBER	CD20 + WIL2S GMFI OVER BKG	CD20 NEG GMFI OVER BKG
MAB 15661	604.3	1.2
MAB15671	209.4	1.1
MAB15706	282	0.9
MAB15703	137.8	1.1
MAB15713	105	1

FIG. 14

MVA/FPV ANTI-CD20 ANTIBODIES		
mAb NUMBER	CD20 + WIL2S GMFI OVER BKG	CD20 NEG GMFI OVER BKG
MAB15630	91.8	1.0
MAB15682	77.9	1.0
MAB15632	33.1	0.9
MAB15692	13.1	4.2
MAB15621	10.5	4

FIG. 15