

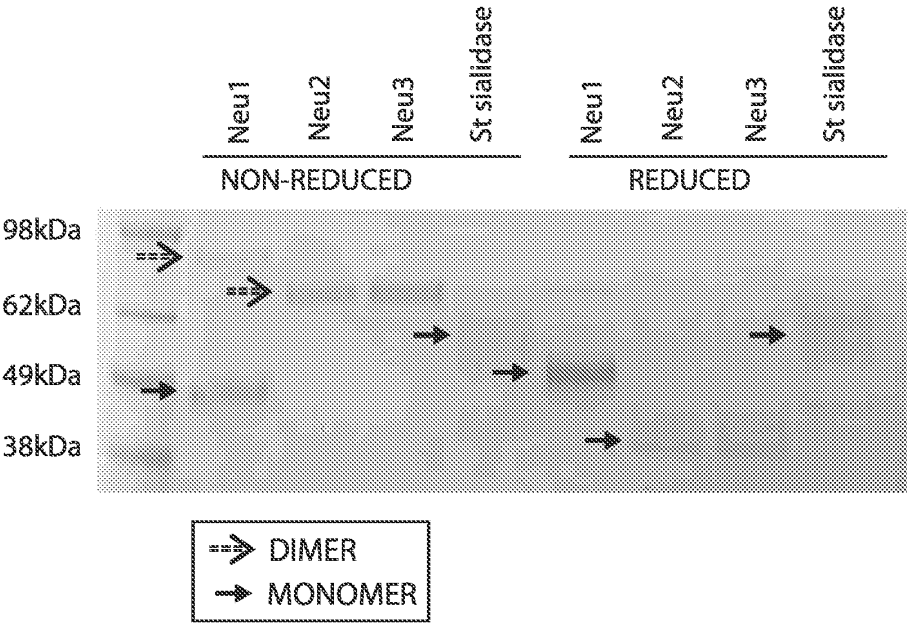


FIGURE 1

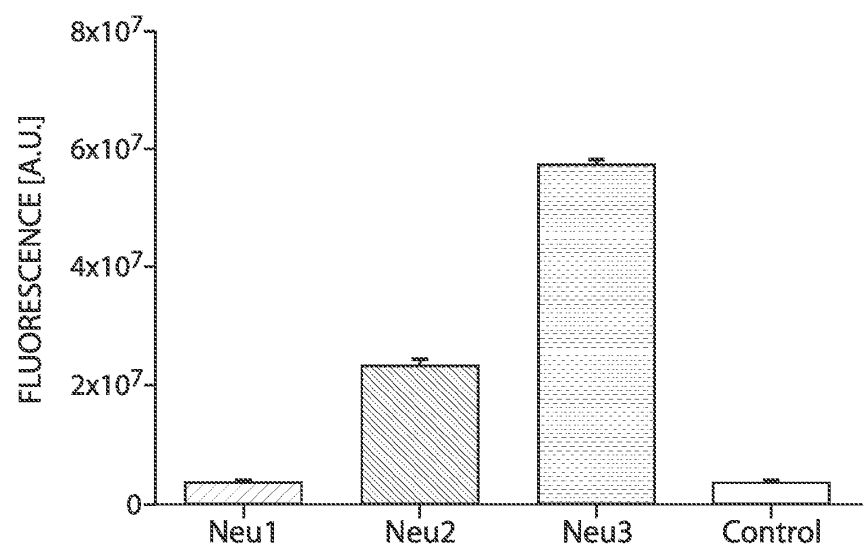


FIGURE 2

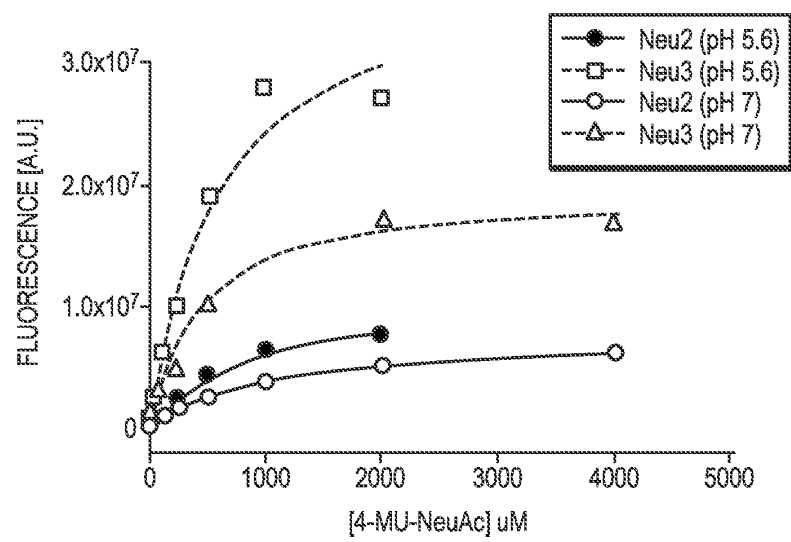


FIGURE 3

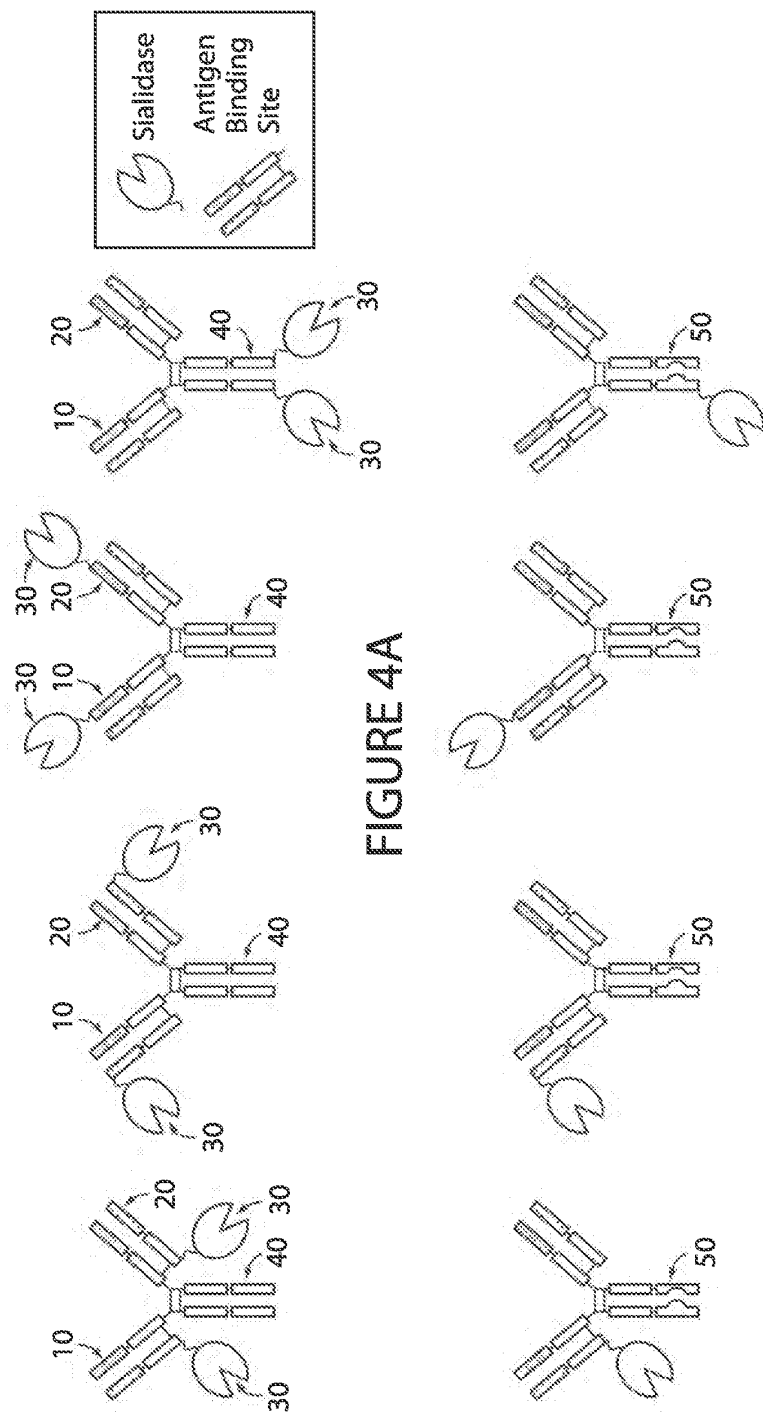
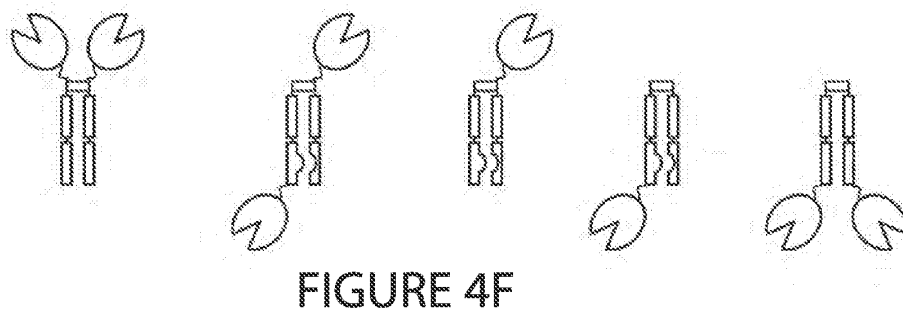
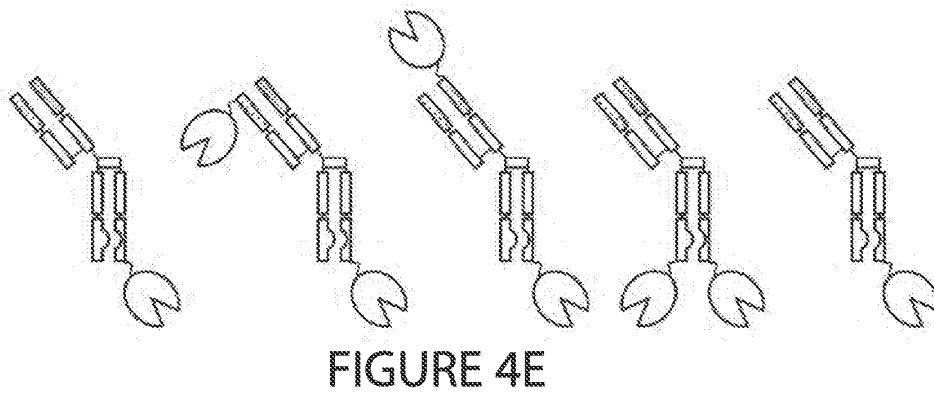
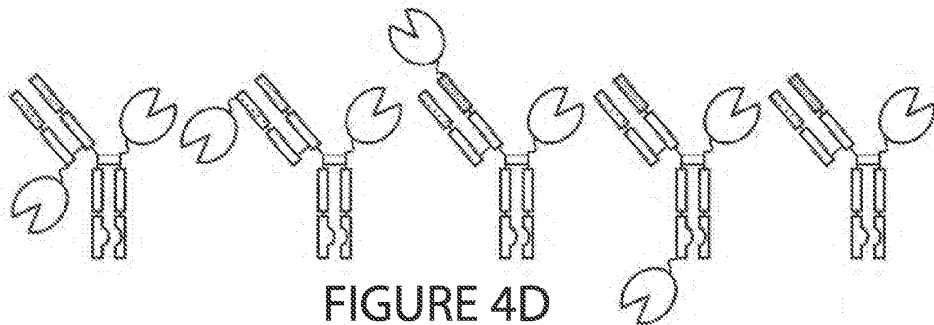
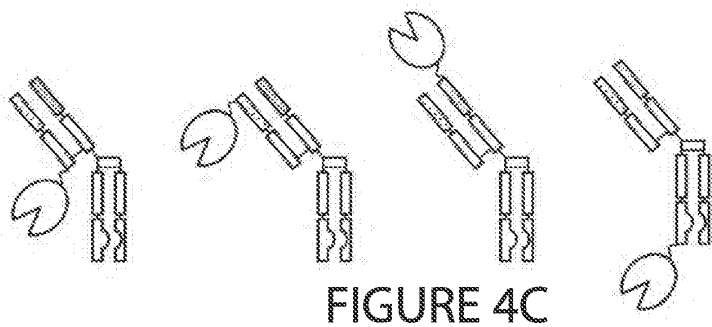


FIGURE 4A

FIGURE 4B



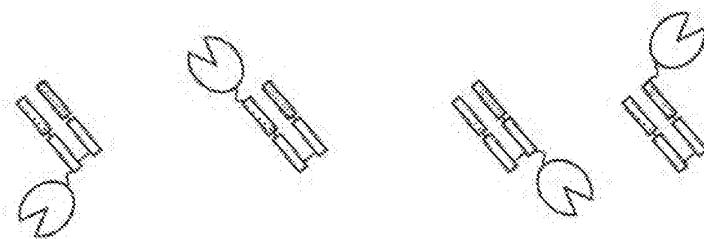


FIGURE 4G

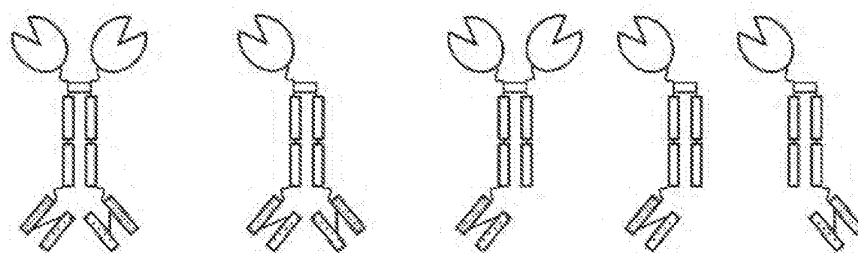


FIGURE 4H

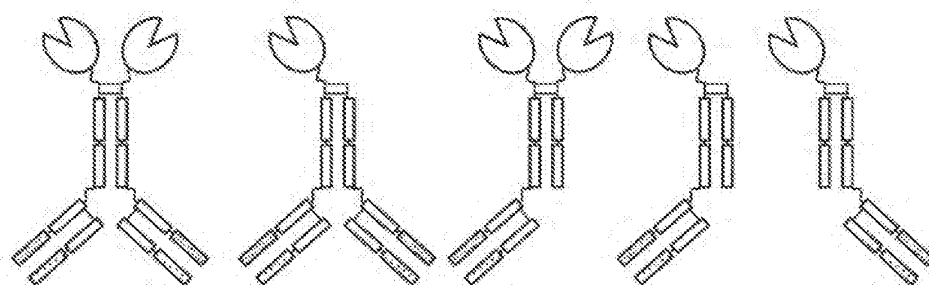


FIGURE 4I

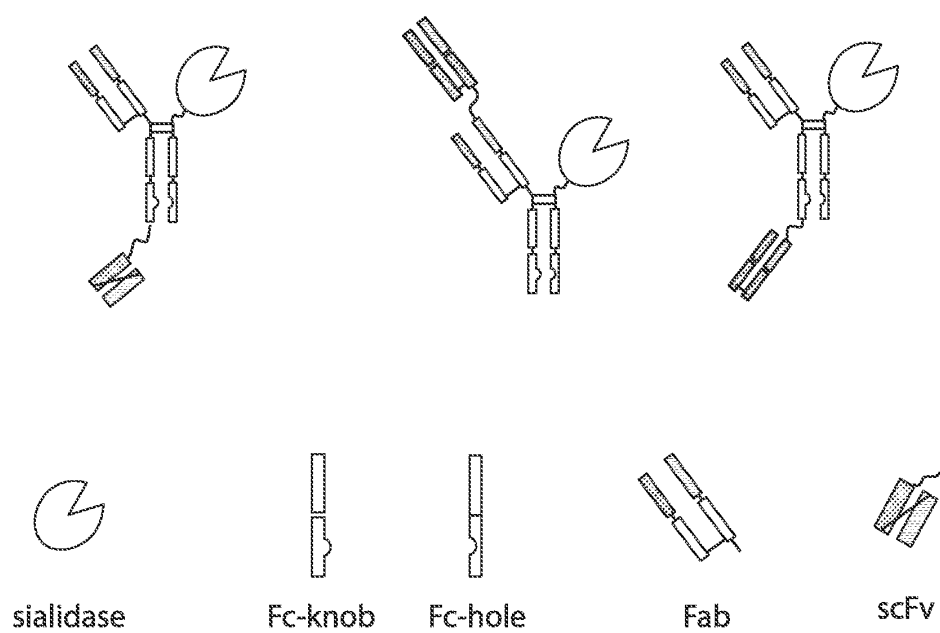
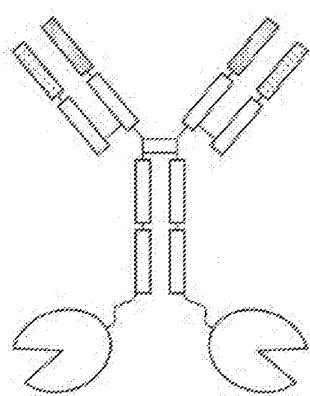
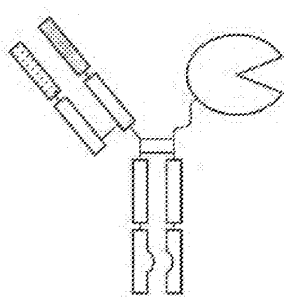


FIGURE 5



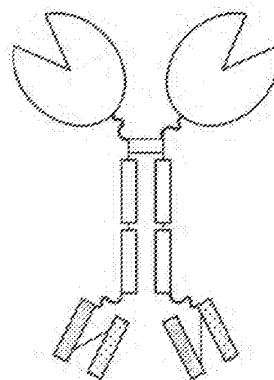
RAPTOR

FIGURE 6A



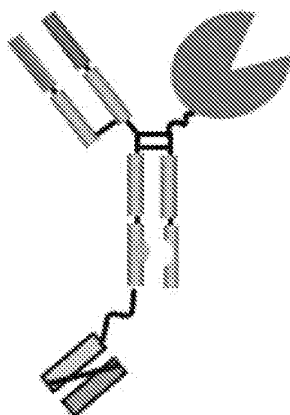
JANUS

FIGURE 6B



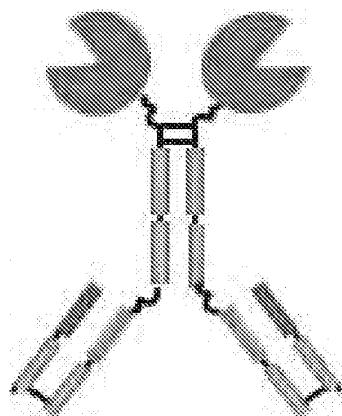
LOBSTER

FIGURE 6C



BUNK

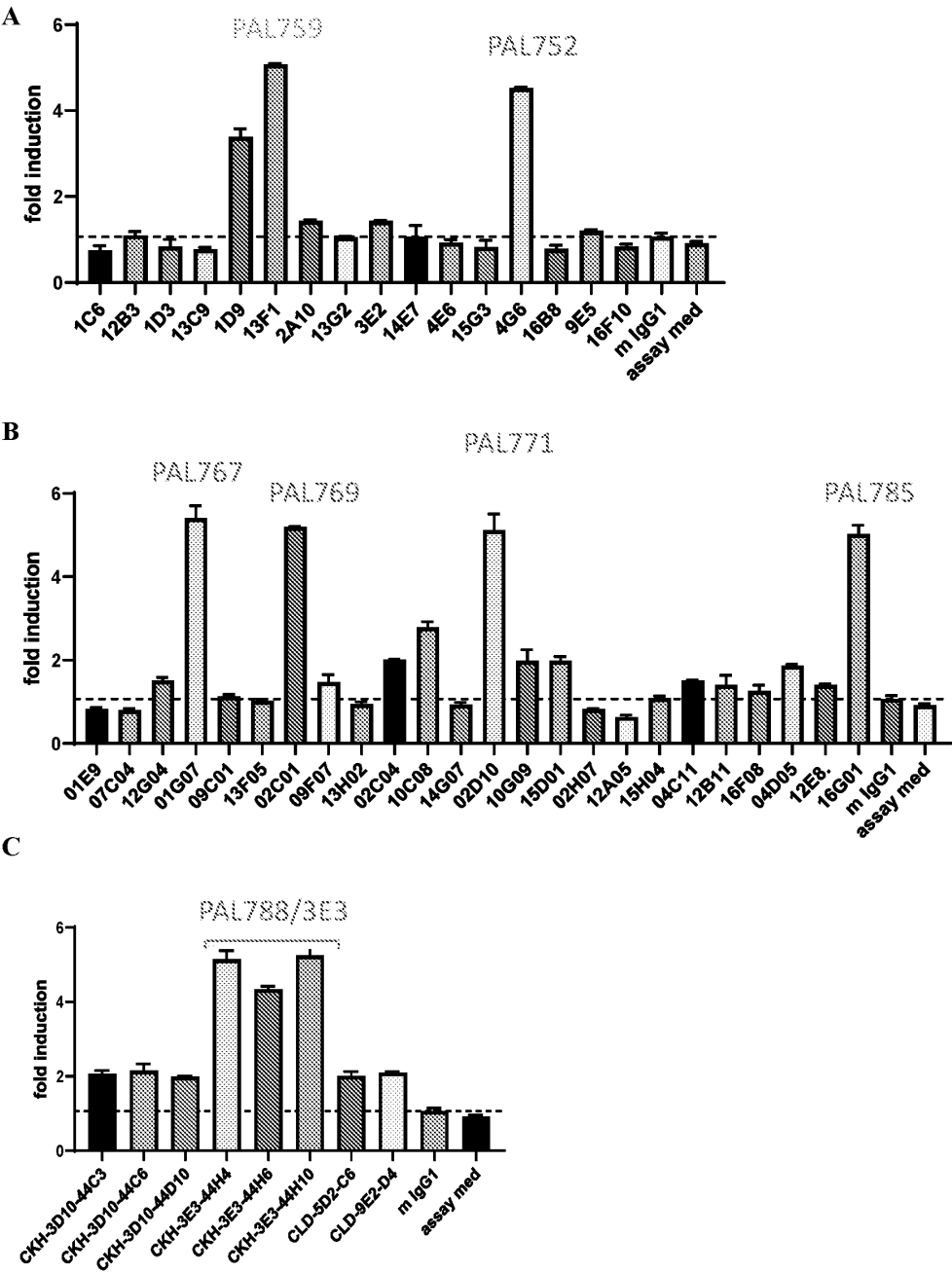
FIGURE 6D



LOBSTER-FAB

FIGURE 6E

FIGURE 7



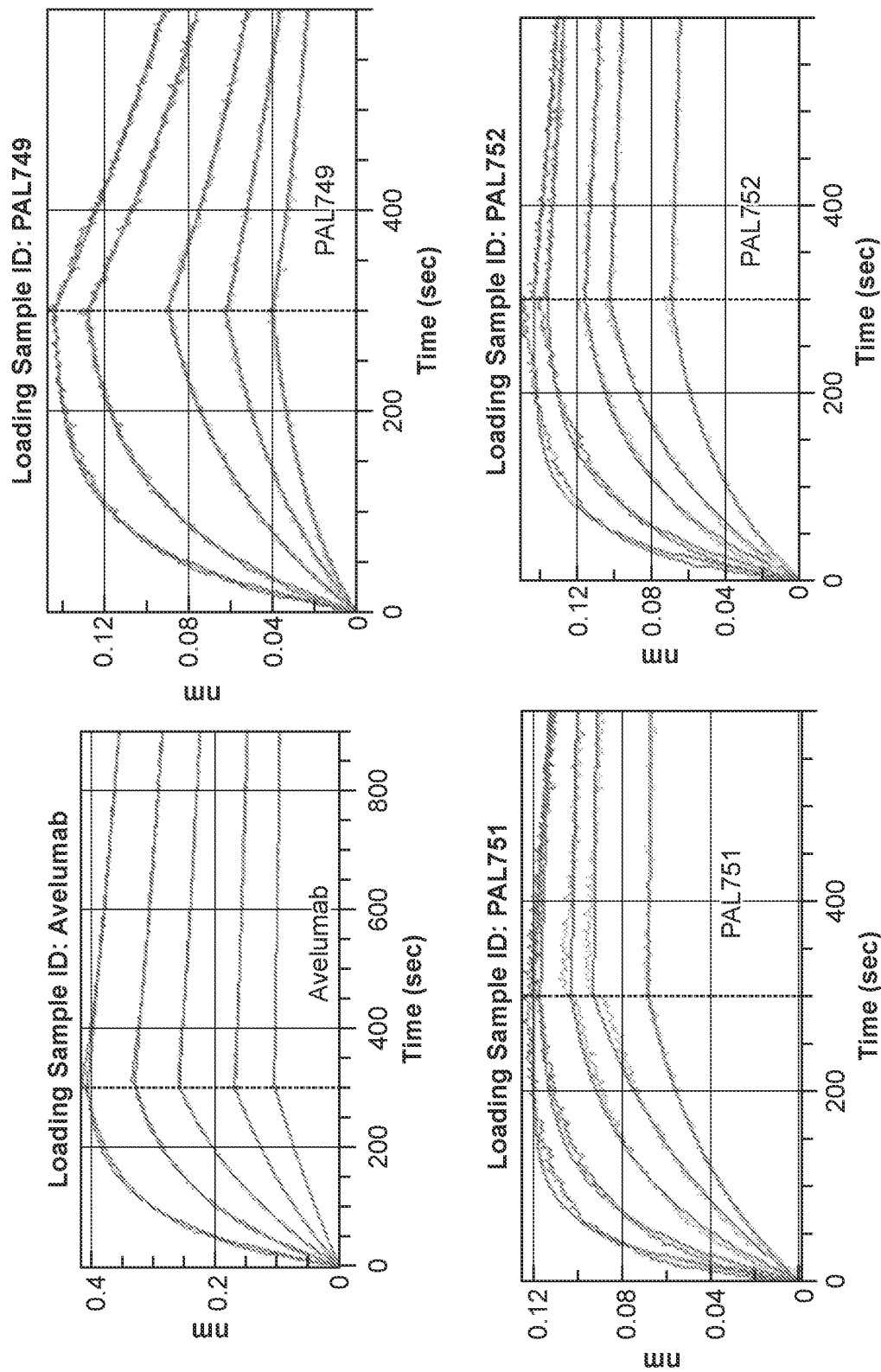


FIG. 8A

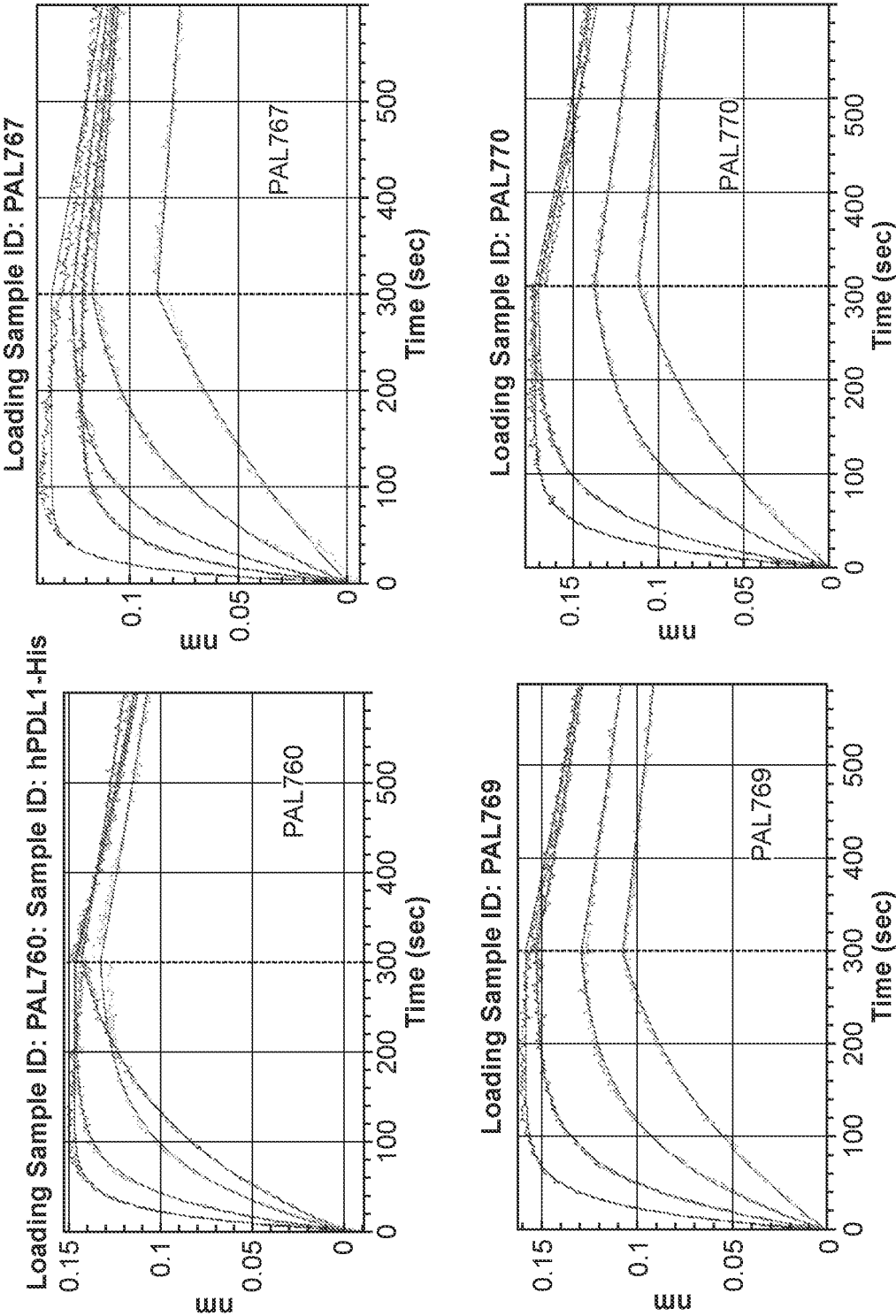


FIG. 8B

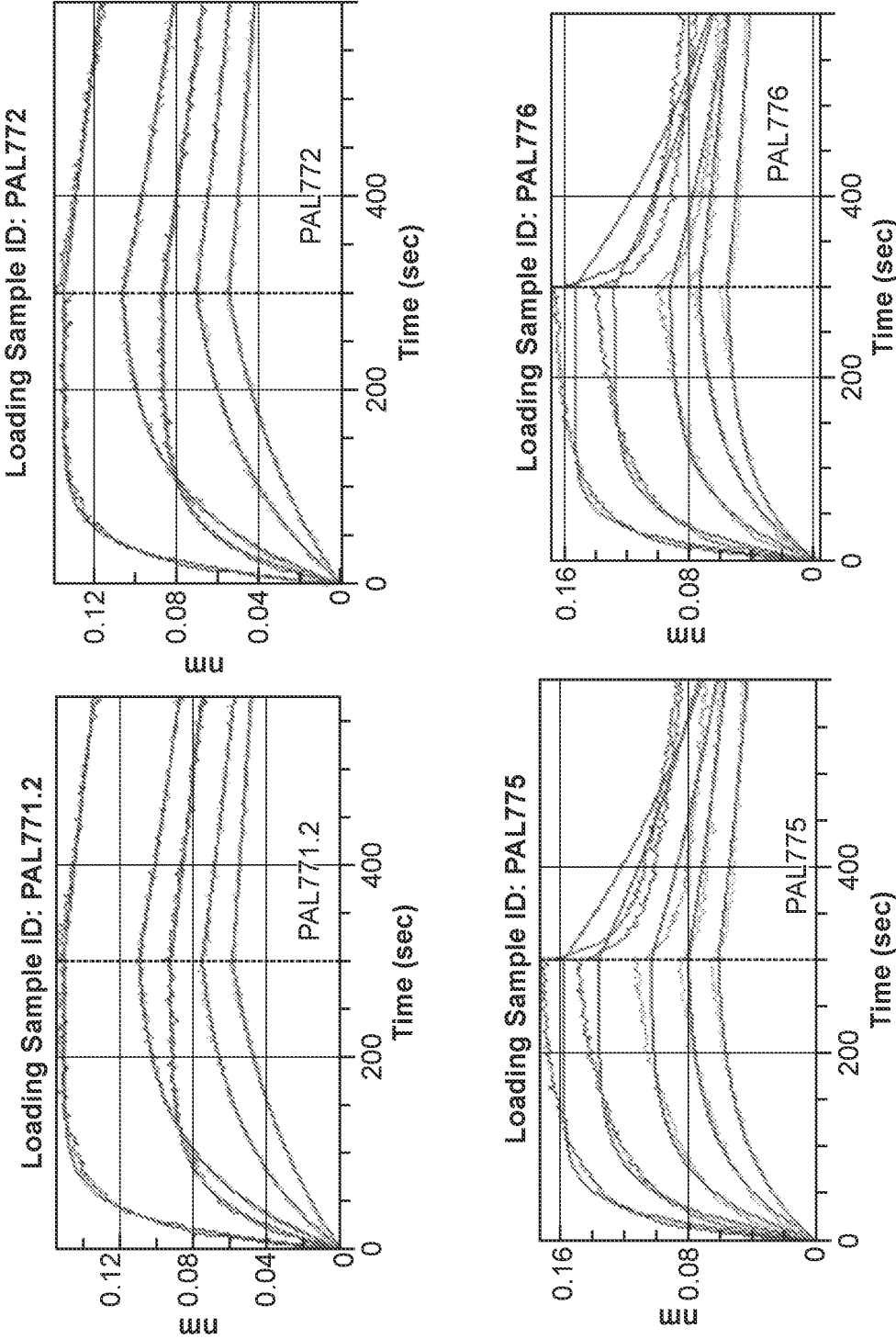


FIG. 8C

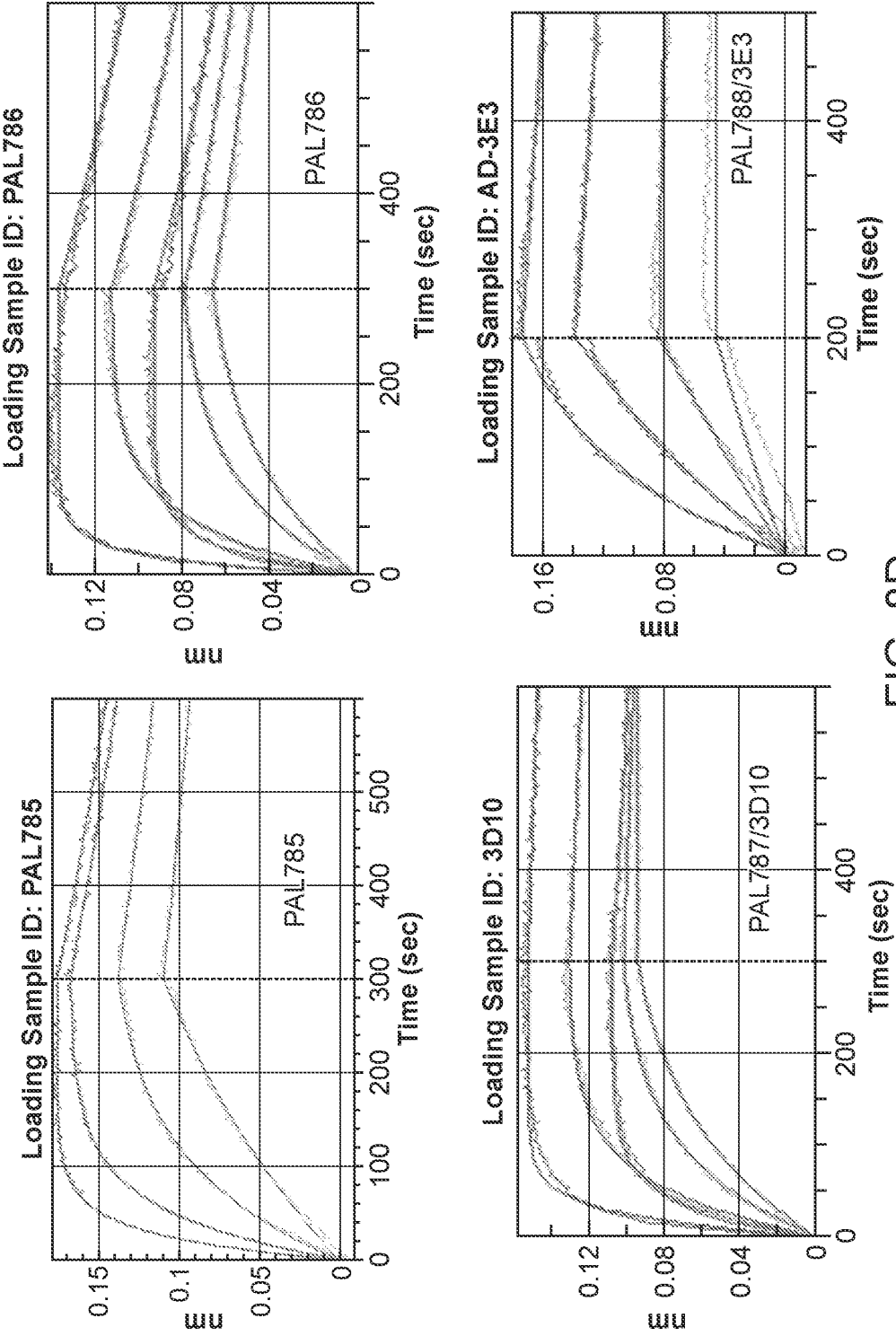


FIG. 8D

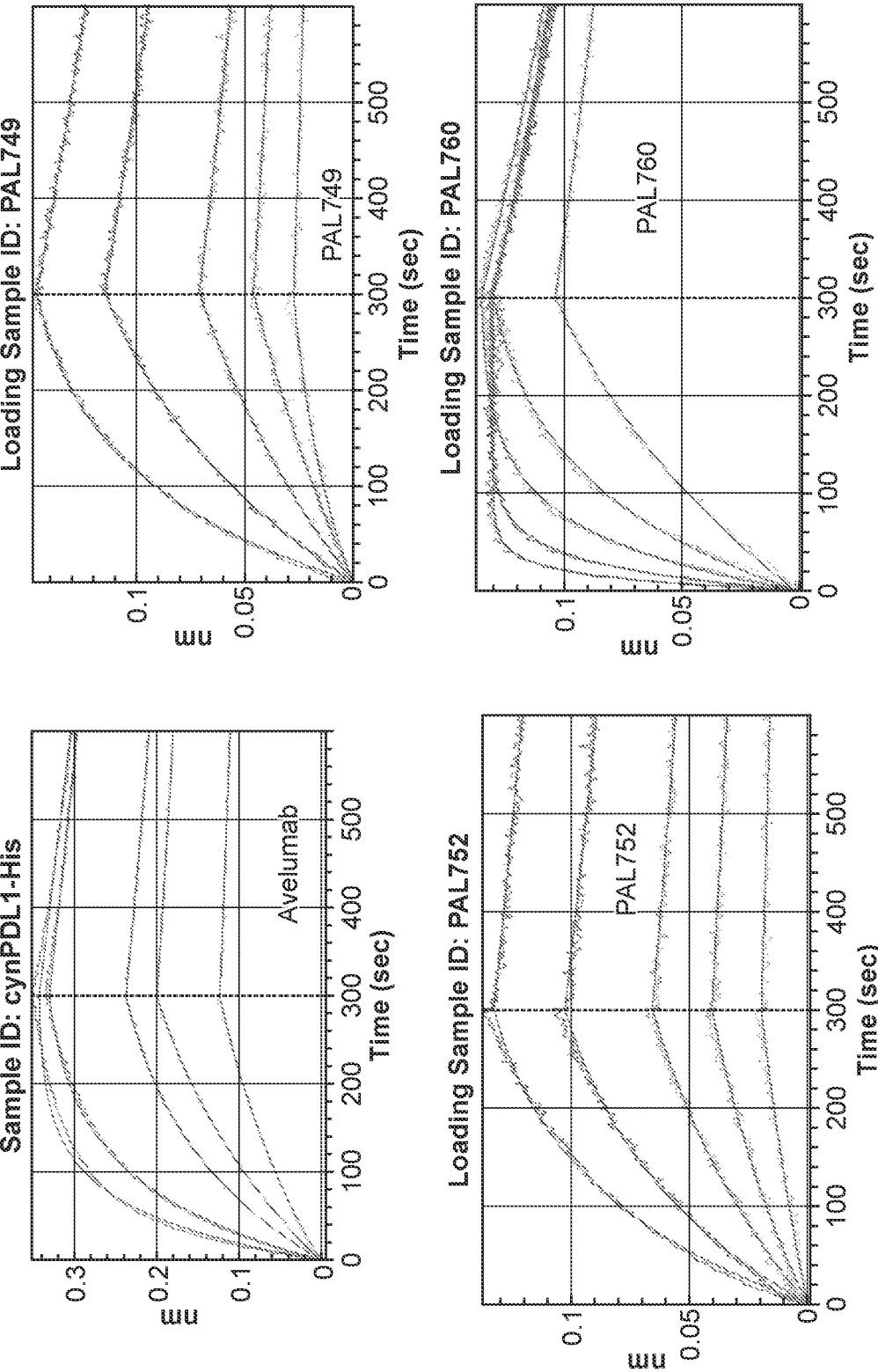


FIG. 9A

FIG. 9B

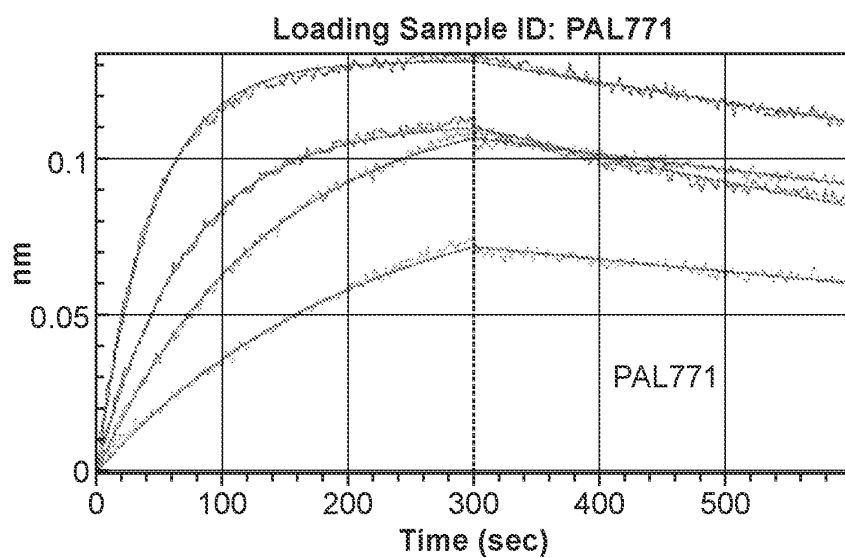
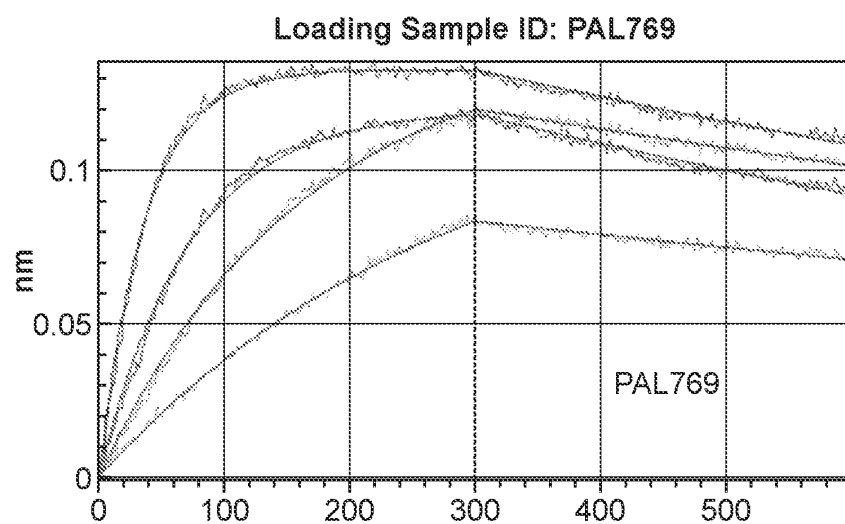
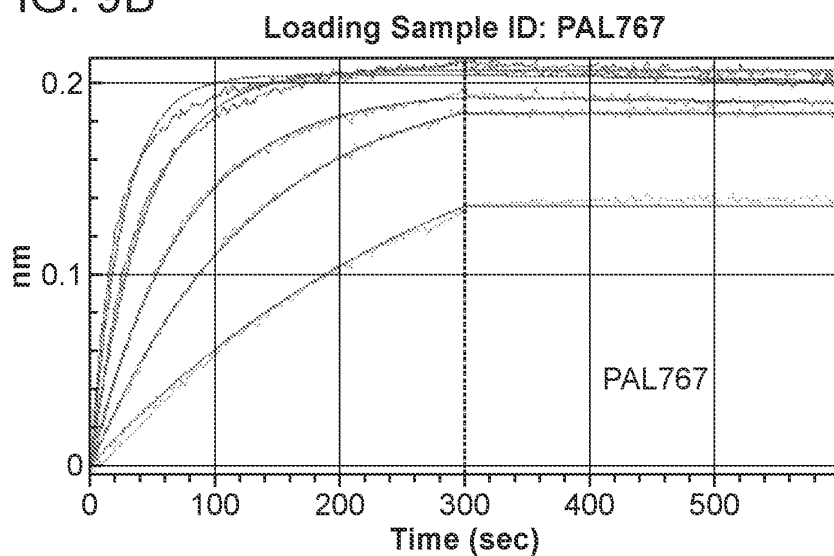
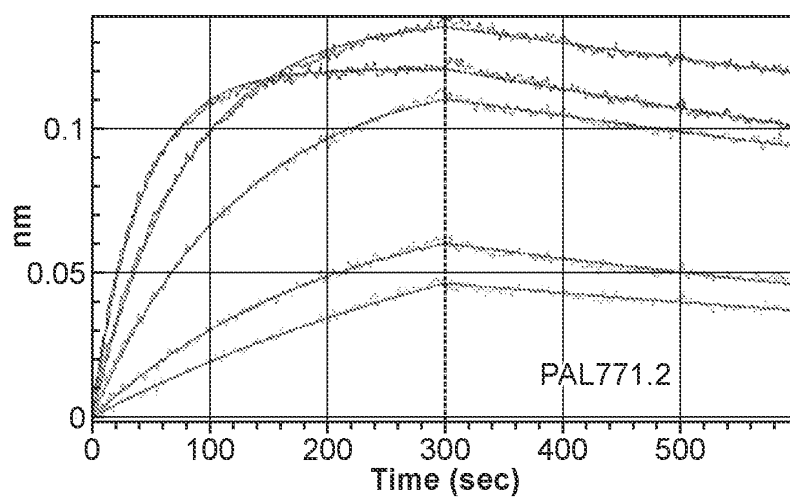
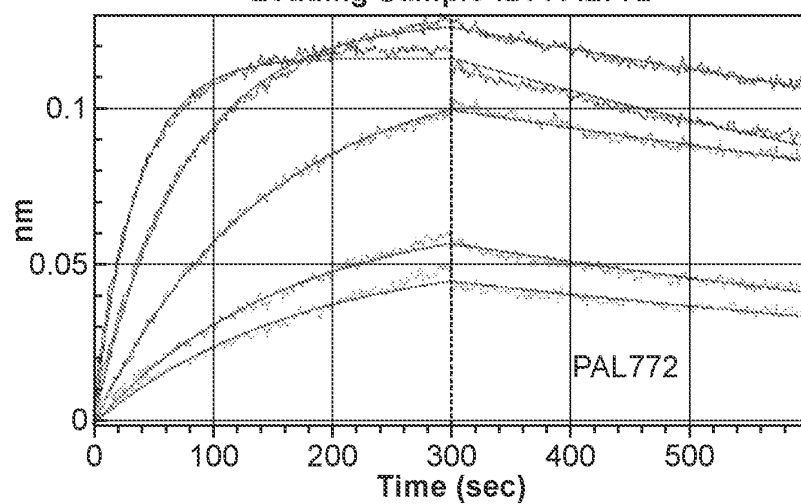


FIG. 9C

Loading Sample ID: PAL771.2



Loading Sample ID: PAL772



Loading Sample ID: PAL785

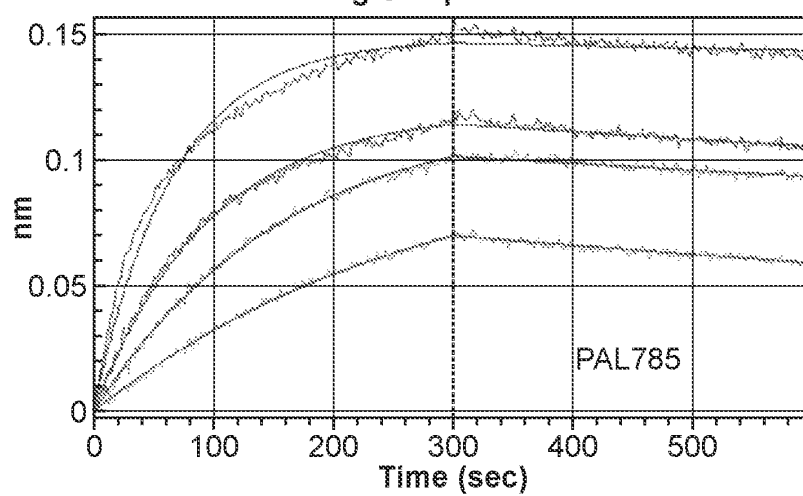


FIG. 9D

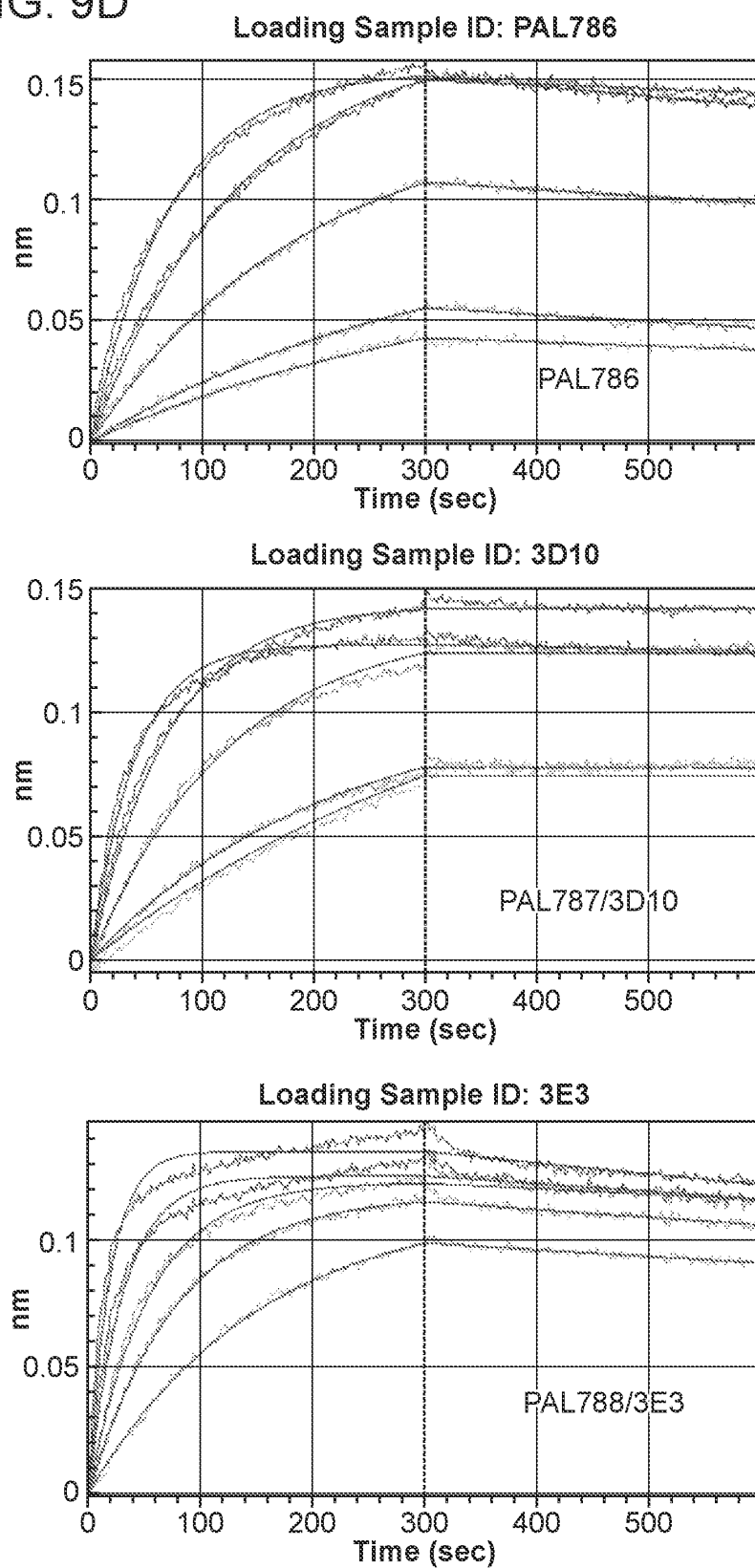


FIGURE 10

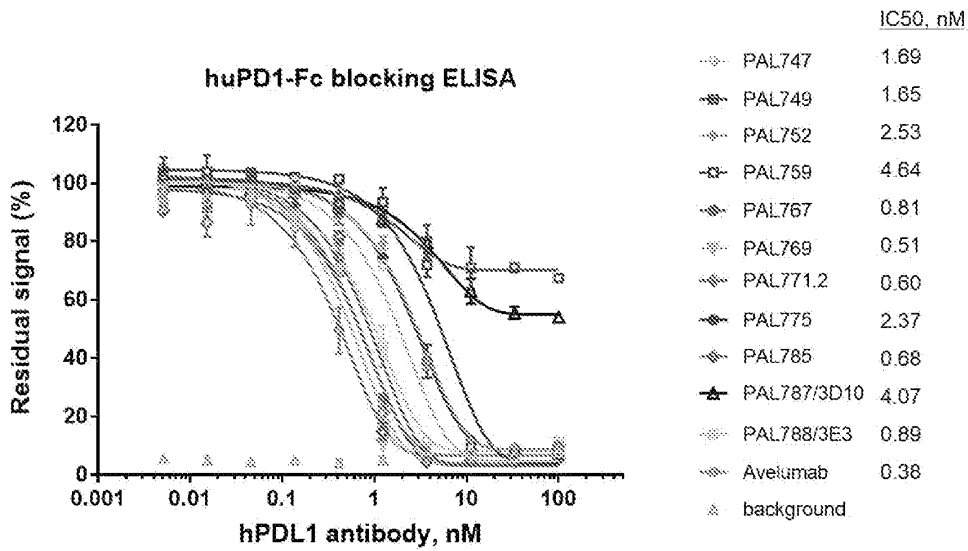


FIGURE 11A

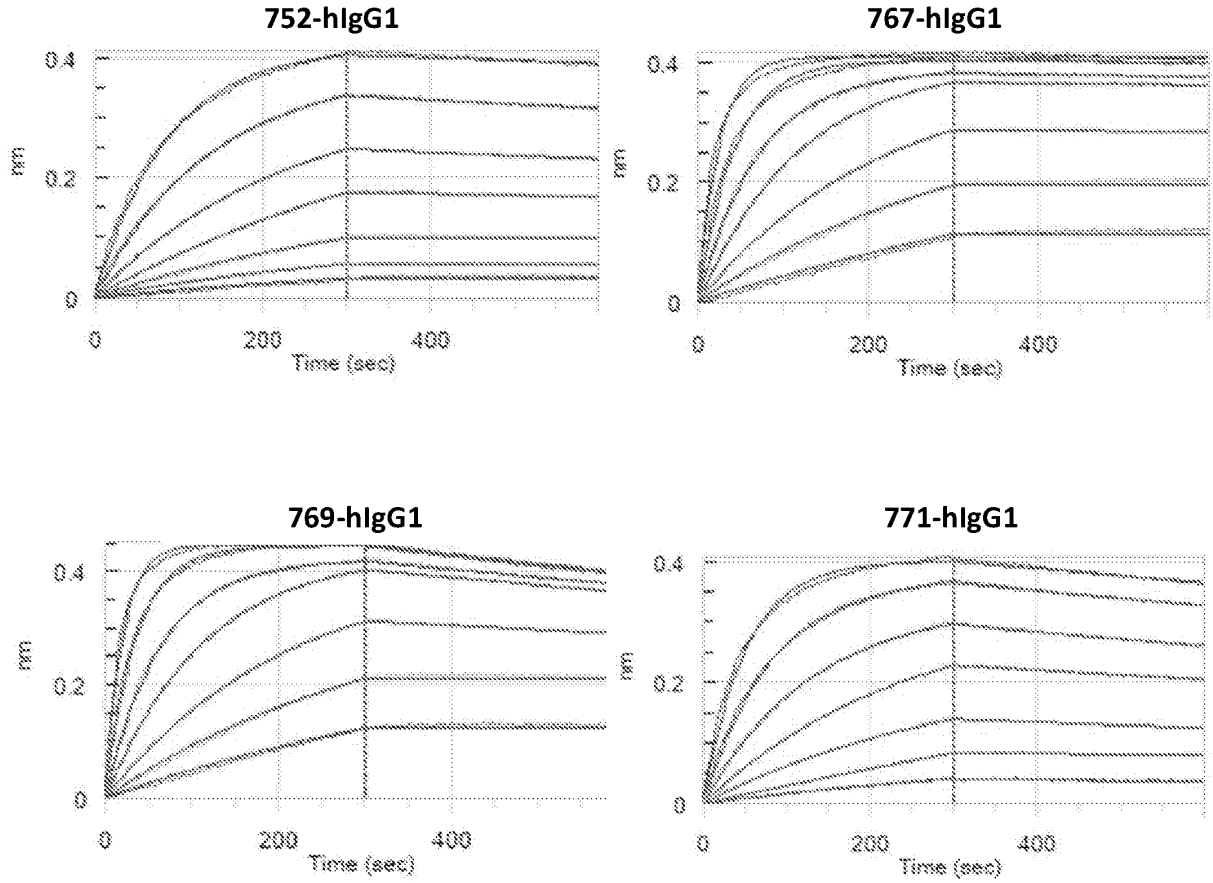


FIGURE 11B

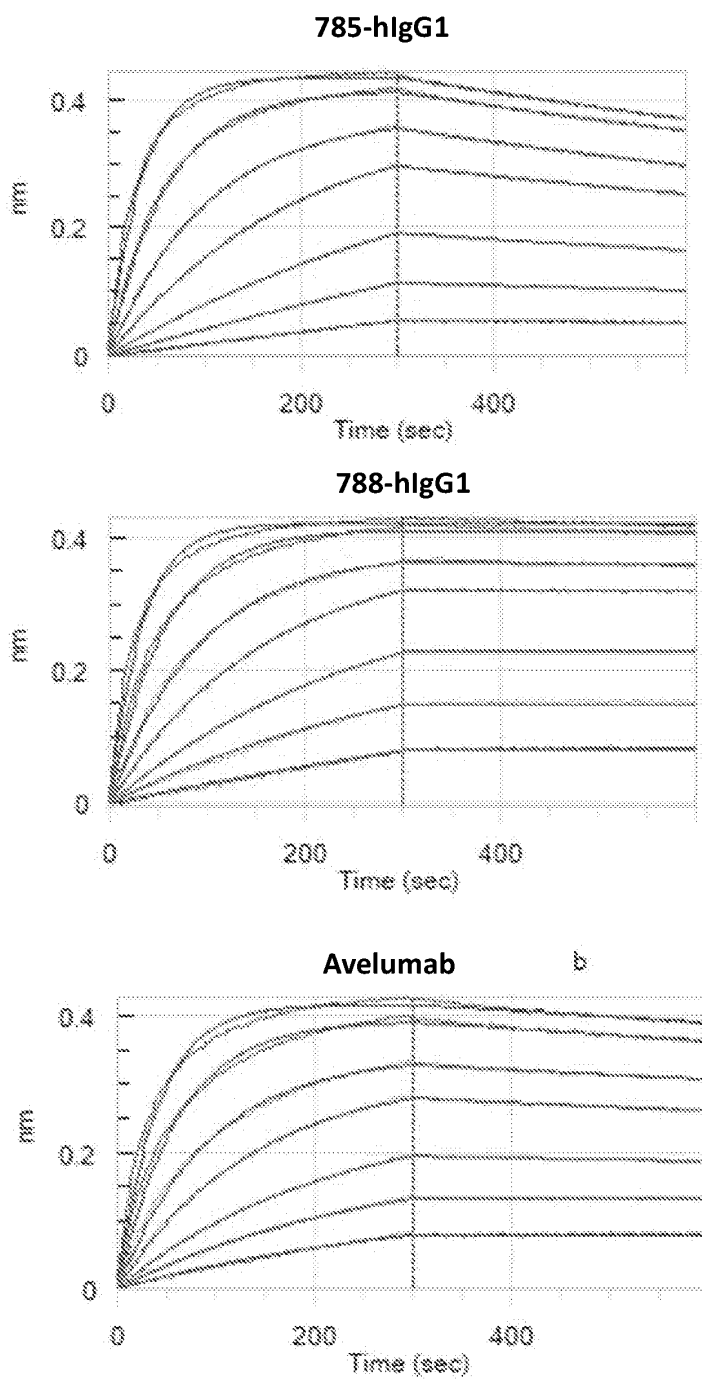


FIGURE 11C

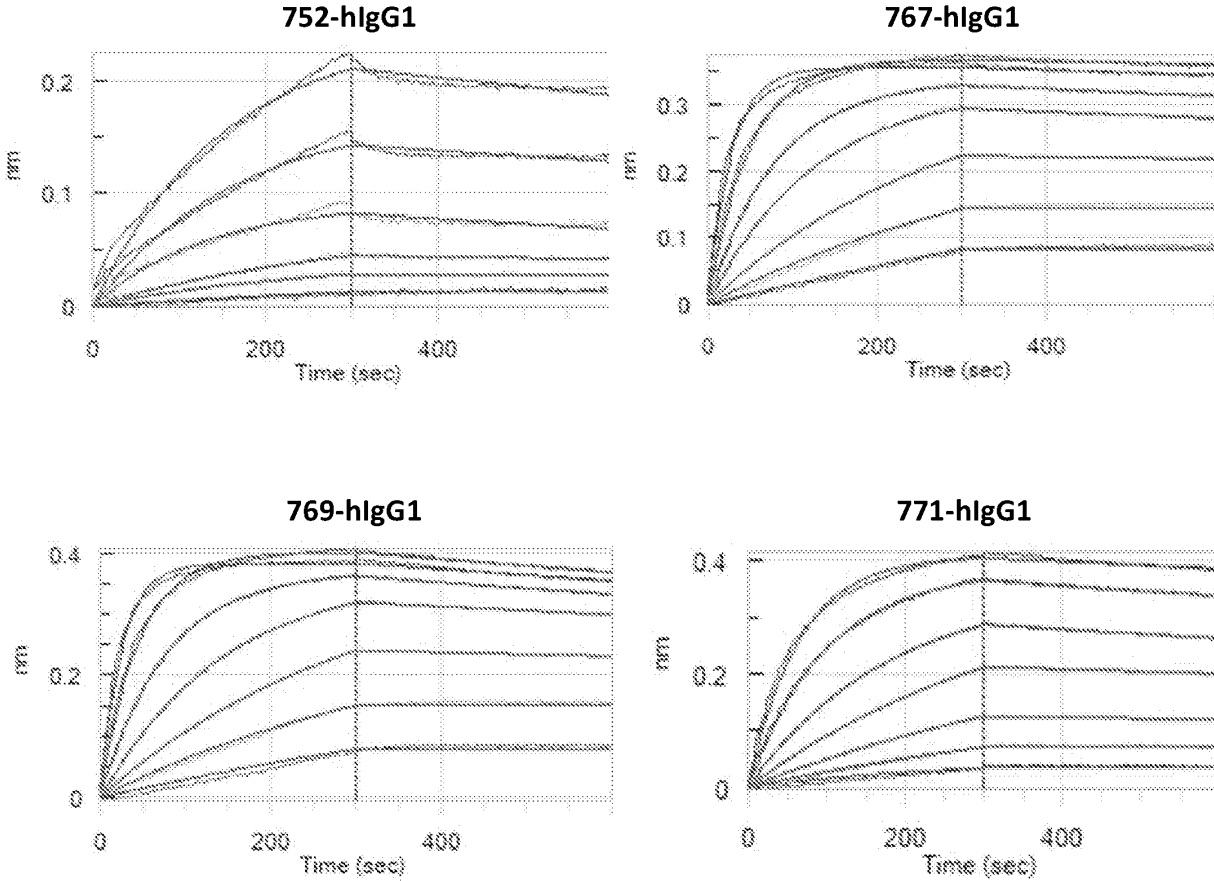
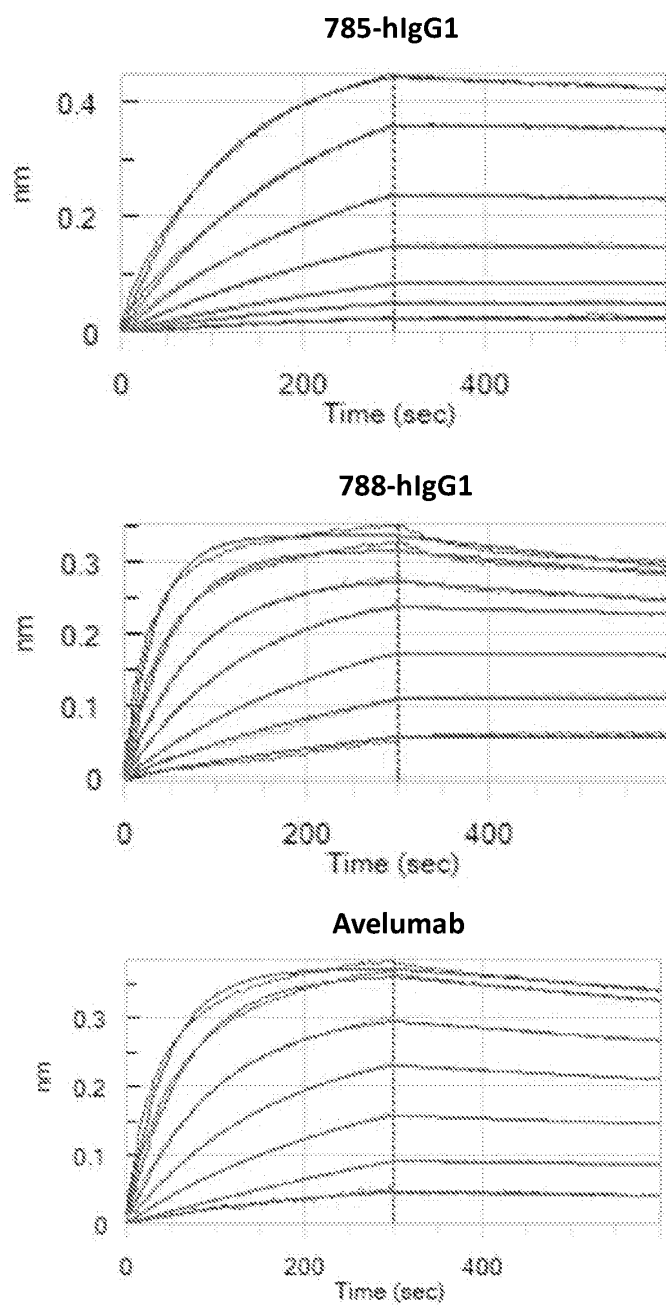


FIGURE 11D



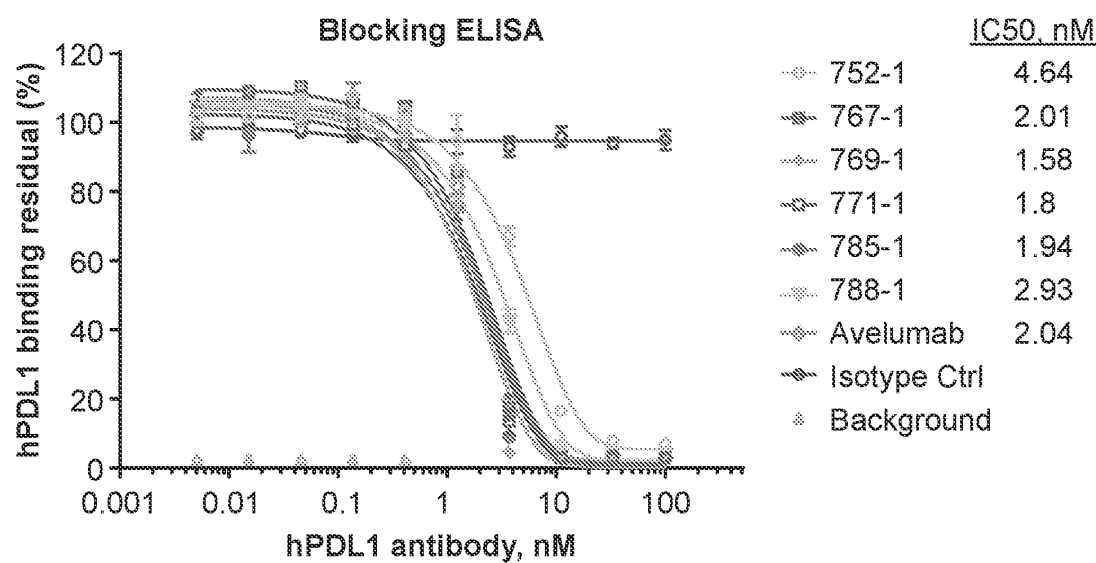


FIG. 12

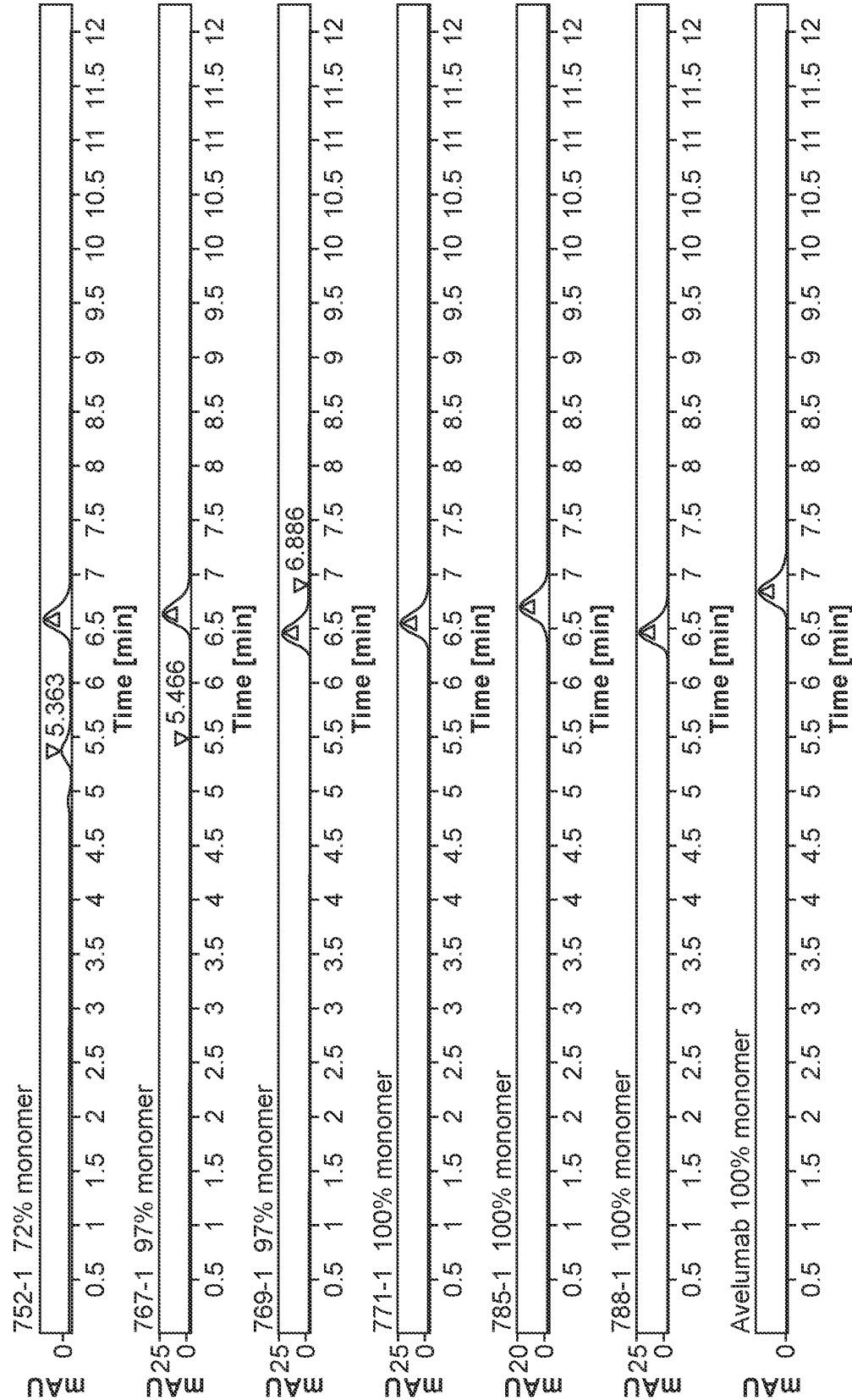


FIG. 13

FIGURE 14A

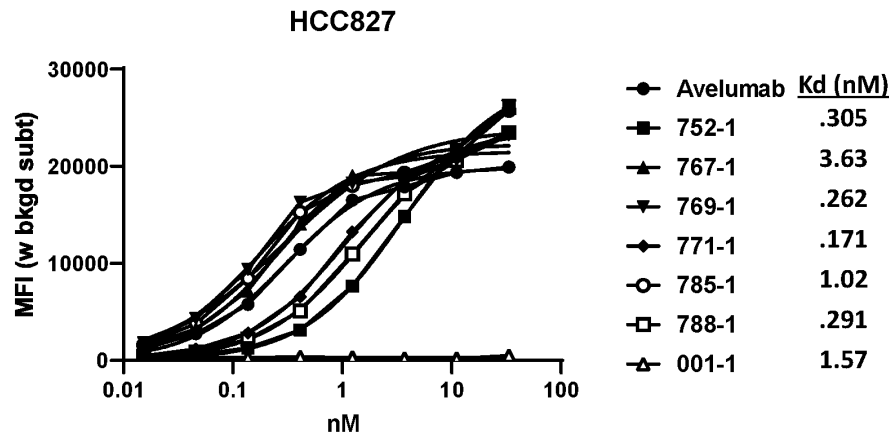


FIGURE 14B

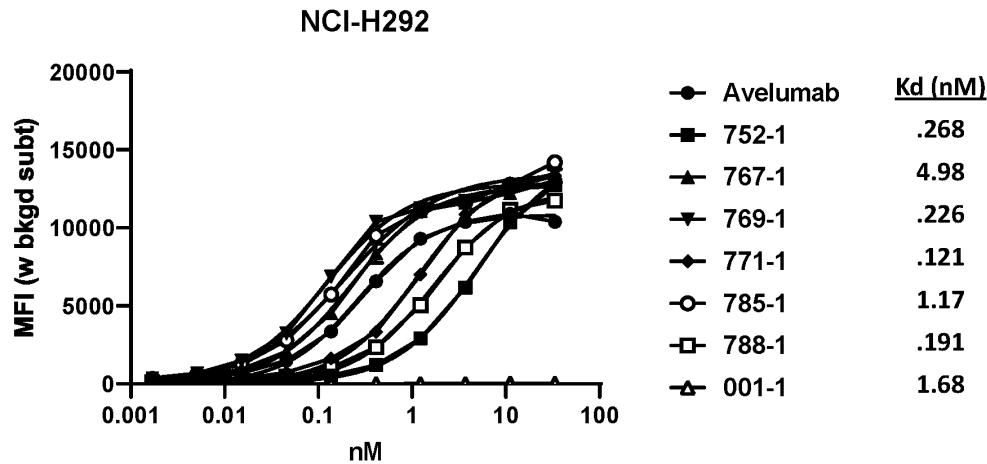


FIGURE 15

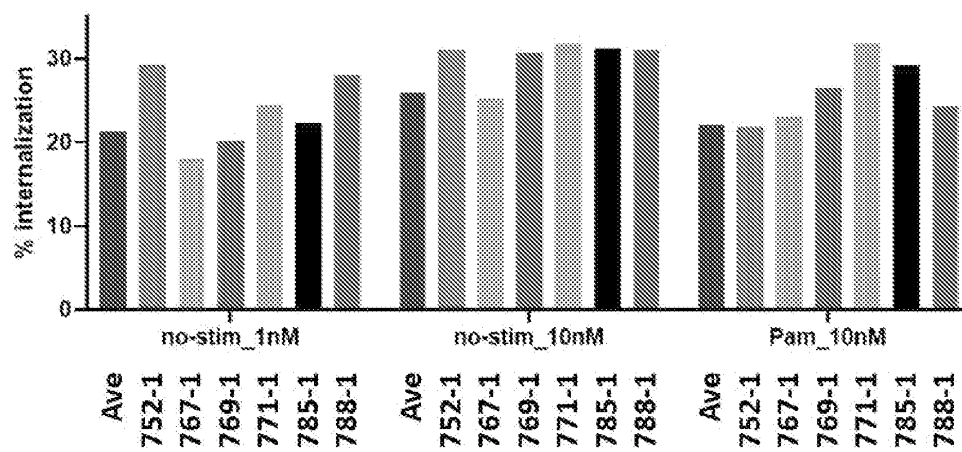


FIGURE 16

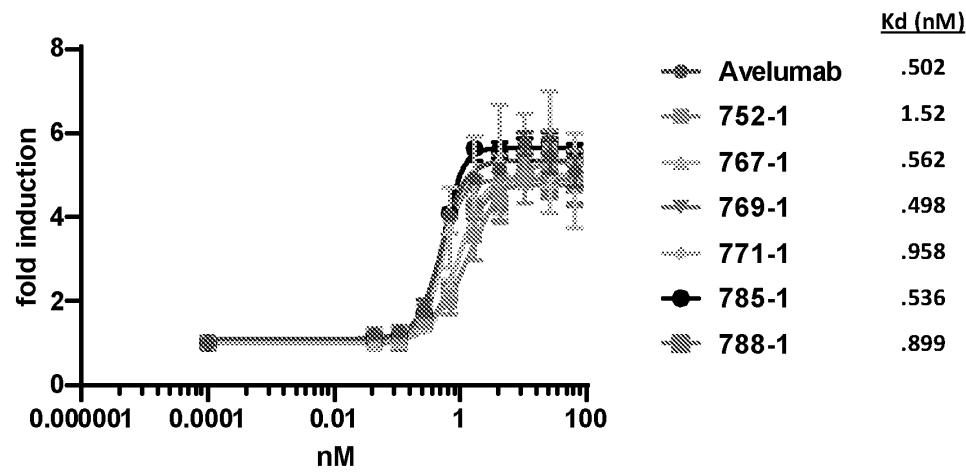


FIGURE 17

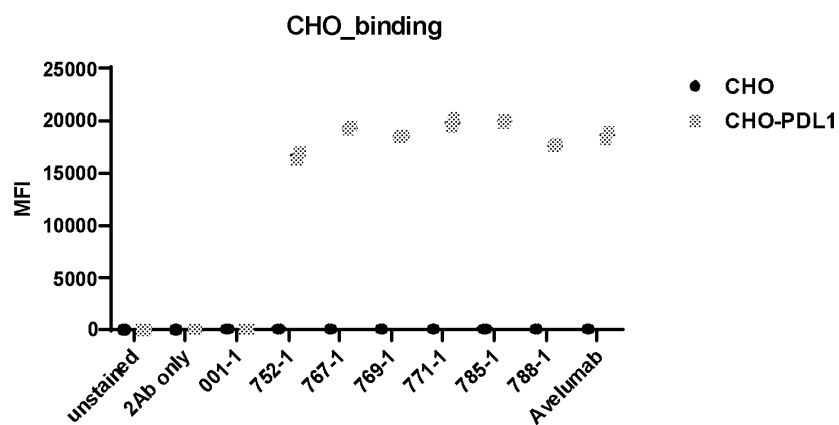


FIGURE 18A

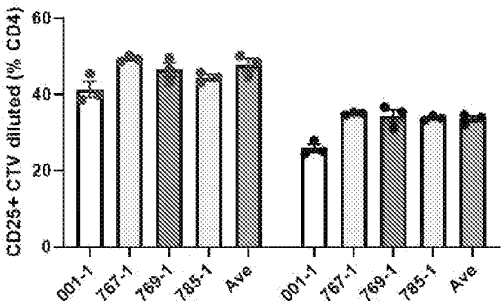


FIGURE 18B

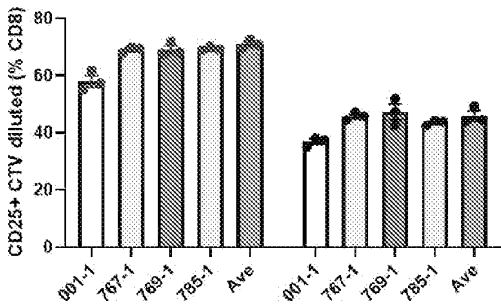


FIGURE 18C

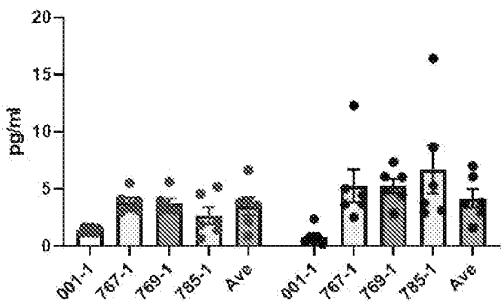


FIGURE 18D

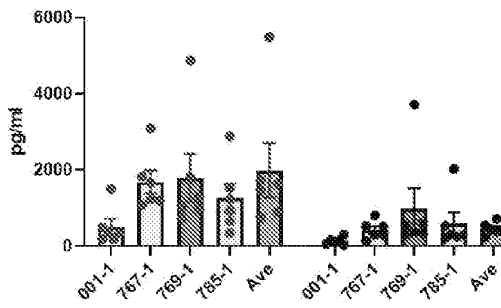


FIGURE 19A

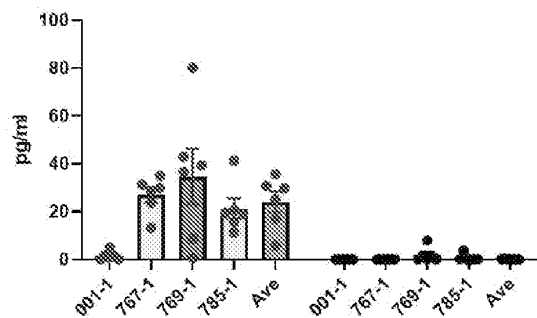


FIGURE 19B

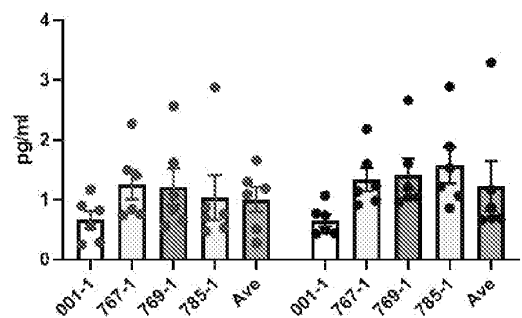


FIGURE 19C

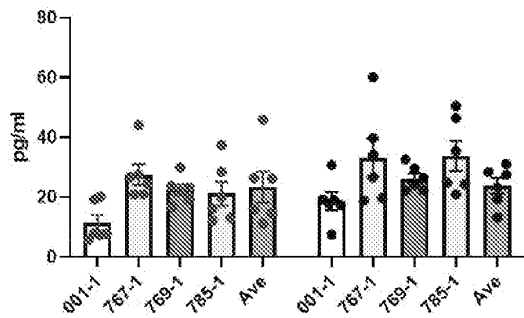


FIGURE 19D

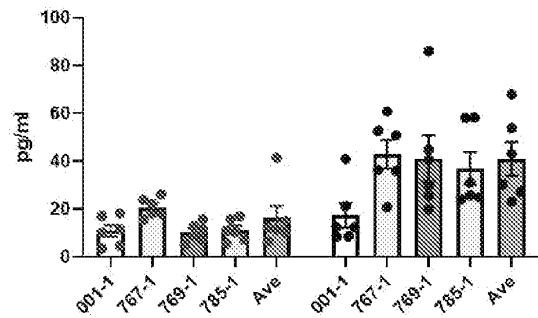


FIGURE 20A

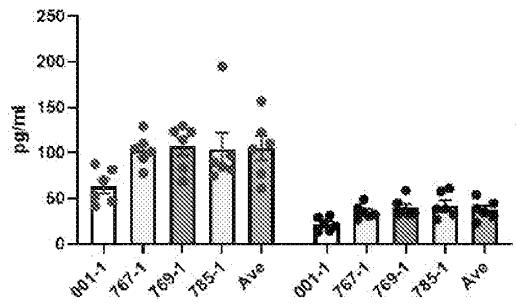


FIGURE 20B

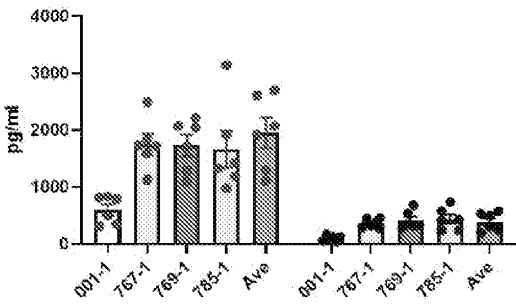


FIGURE 20C

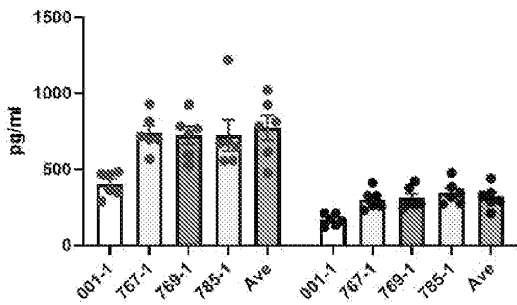
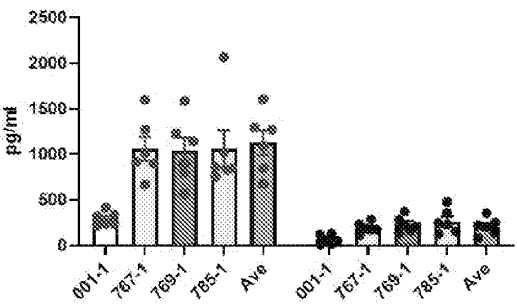


FIGURE 20D



Accession	Seq. ID	Seq. ID NO.
769VH-wt	769VH-wt	164
h769VH-mFO	h769VH-mFO	199

Accession	Seq ID	Seq ID NO
769VH-wt	(SEQ ID NO:	164)
h769VH-mF0	(SEQ ID NO:	199)

FILE 21A

One back to one

Protein	(SEQ ID NO: 167)	(SEQ ID NO: 242)	(SEQ ID NO: 243)	(SEQ ID NO: 244)	(SEQ ID NO: 245)	(SEQ ID NO: 246)
769Vb-wt	SIAMTQTPKELLVSAGDRVTITCKASQSVSNDLVIWYQKPGQSPKLLIYYASIRFTGVDP	EIVMTQSPPTLSLSPGERVITLSRASQSVSNDLSWYQKPGQAPRLIIYYASTPATGIPA	EIVMTQSPPTLSLSPGERVITLSRASQSVSNDLSWYQKPGQAPRLIIYYASTPATGIPA	EIVMTQSPPTLSLSPGERVITLSRASQSVSNDLSWYQKPGQAPRLIIYYASTPATGIPA	EIVMTQSPPTLSLSPGERVITLSRASQSVSNDLSWYQKPGQAPRLIIYYASTPATGIPA	EIVMTQSPPTLSLSPGERVITLSRASQSVSNDLSWYQKPGQAPRLIIYYASTPATGIPA
h769Vb-mF0						
h769Vb-T53I						
h769Vb-A55F						
h769Vb-S67Y						
h769Vb-Y87F						

Protein	(SEQ ID NO: 167)	(SEQ ID NO: 167)	Protein	(SEQ ID NO: 167)
h769vk-wt	RFACSGYGIDFTFTINTVCAEDLAVYFCQDYNSPWTFGGTKLEIK	RFACSGYGIDFTFTINTVCAEDLAVYFCQDYNSPWTFGGTKLEIK	h769vk-mF0	RFSCSGSIDFTLTISLQPEDFAVYCCQDYNSPWTFGGTKVVEIK
h769vk-T53I	RFSCSGSIDFTLTISLQPEDFAVYCCQDYNSPWTFGGTKVVEIK	RFSCSGSIDFTLTISLQPEDFAVYCCQDYNSPWTFGGTKVVEIK	h769vk-A55F	RFSCSGSIDFTLTISLQPEDFAVYCCQDYNSPWTFGGTKVVEIK
h769vk-S67Y	RFSCSGSIDFTLTISLQPEDFAVYCCQDYNSPWTFGGTKVVEIK	RFSCSGSIDFTLTISLQPEDFAVYCCQDYNSPWTFGGTKVVEIK	h769vk-Y87F	RFSCSGSIDFTLTISLQPEDFAVYCCQDYNSPWTFGGTKVVEIK

4231B

FIGURE 21C

Two-three back mutations			
h769Vk-1Y	(SEQ ID NO: 247)	EIVMTQSPPTLSLSPGERVTLSRASQSVSNDLSWYQOKPGQAPRLLIYYAS	60
h769Vk-1F2	(SEQ ID NO: 248)	EIVMTQSPPTLSLSPGERVTLSRASQSVSNDLSWYQOKPGQAPRLLIYYAS	60
h769Vk-tm1	(SEQ ID NO: 249)	EIVMTQSPPTLSLSPGERVTLSRASQSVSNDLSWYQOKPGQAPRLLIYYAS	60
h769Vk-1F3	(SEQ ID NO: 200)	EIVMTQSPPTLSLSPGERVTLSRASQSVSNDLSWYQOKPGQAPRLLIYYAS	60
h769Vk-tm2	(SEQ ID NO: 201)	EIVMTQSPPTLSLSPGERVTLSRASQSVSNDLSWYQOKPGQAPRLLIYYAS	60
h769Vk-tm3	(SEQ ID NO: 202)	EIVMTQSPPTLSLSPGERVTLSRASQSVSNDLSWYQOKPGQAPRLLIYYAS	60

h769Vk-1Y	(SEQ ID NO: 247)	RFSGSGSGTDFTLTISSLQPEDFAVYQCQDYNSPWTFGQGTKEIK	107
h769Vk-1F2	(SEQ ID NO: 248)	RFSGSGSGTDFTLTISSLQPEDFAVYQCQDYNSPWTFGQGTKEIK	107
h769Vk-tm1	(SEQ ID NO: 249)	RFSGSGSGTDFTLTISSLQPEDFAVYQCQDYNSPWTFGQGTKEIK	107
h769Vk-1F3	(SEQ ID NO: 200)	RFSGSGSGTDFTLTISSLQPEDFAVYQCQDYNSPWTFGQGTKEIK	107
h769Vk-tm2	(SEQ ID NO: 201)	RFSGSGSGTDFTLTISSLQPEDFAVYQCQDYNSPWTFGQGTKEIK	107
h769Vk-tm3	(SEQ ID NO: 202)	RFSGSGSGTDFTLTISSLQPEDFAVYQCQDYNSPWTFGQGTKEIK	107

Deamidation site

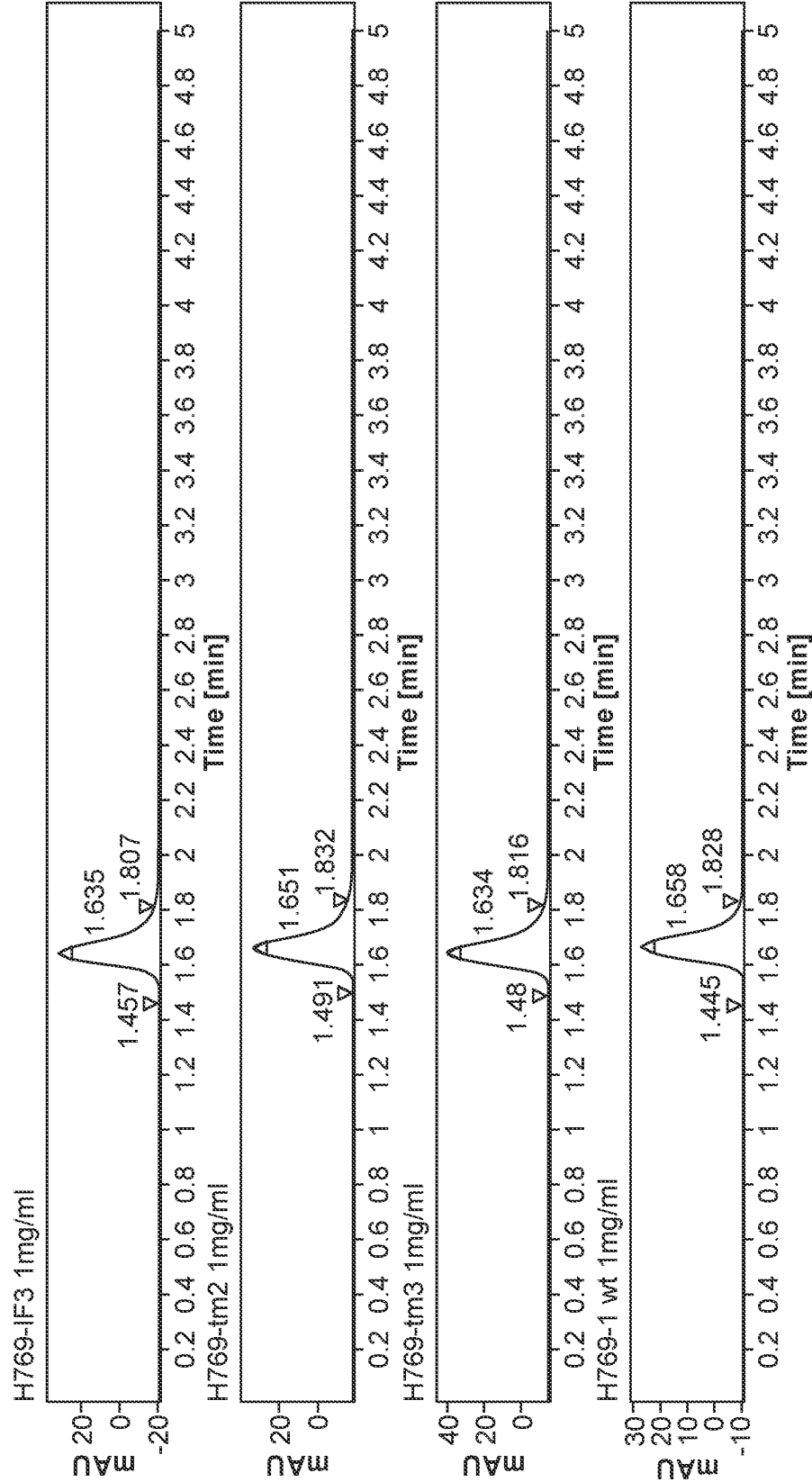


FIG. 22

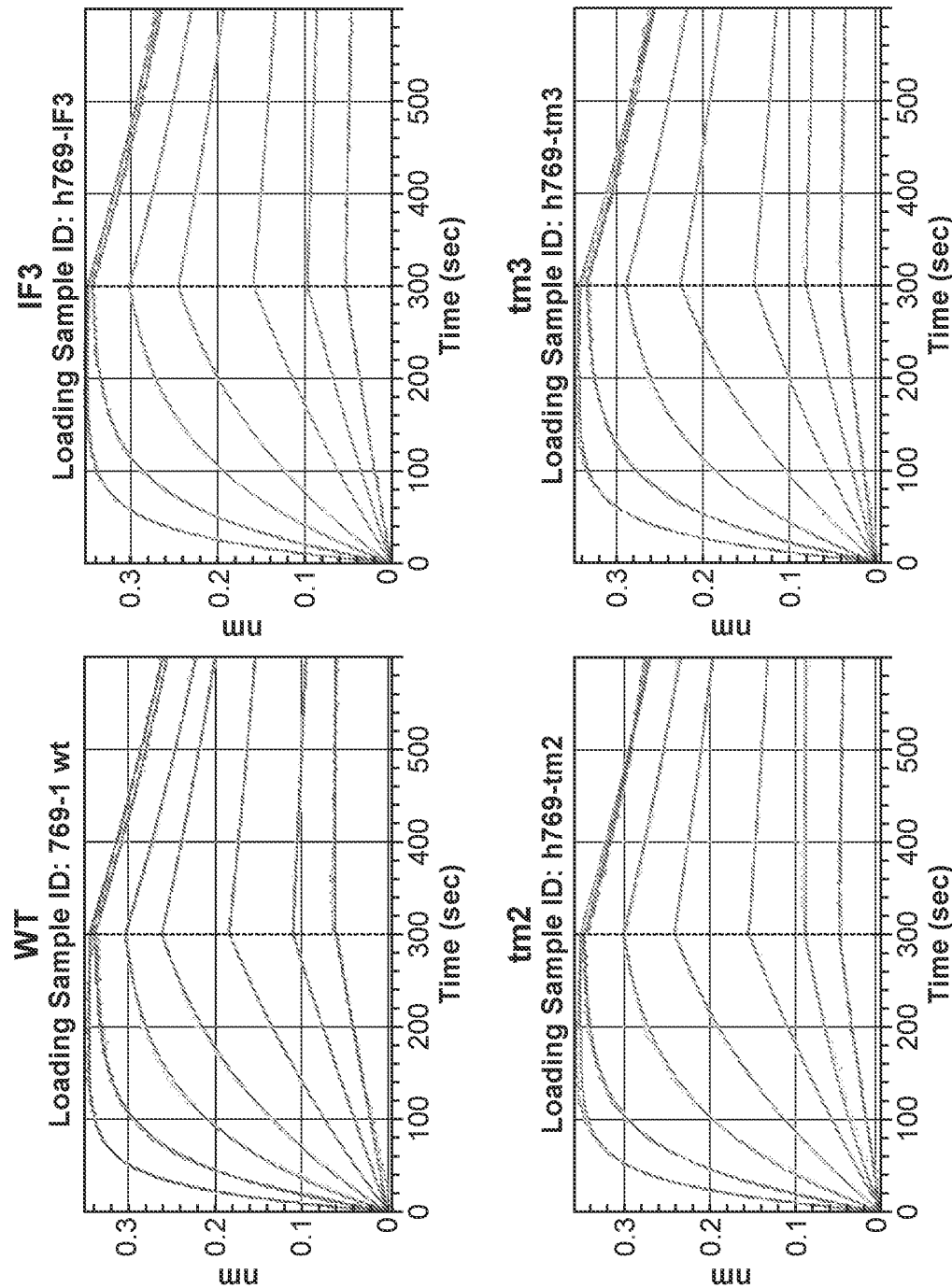


FIG. 23A

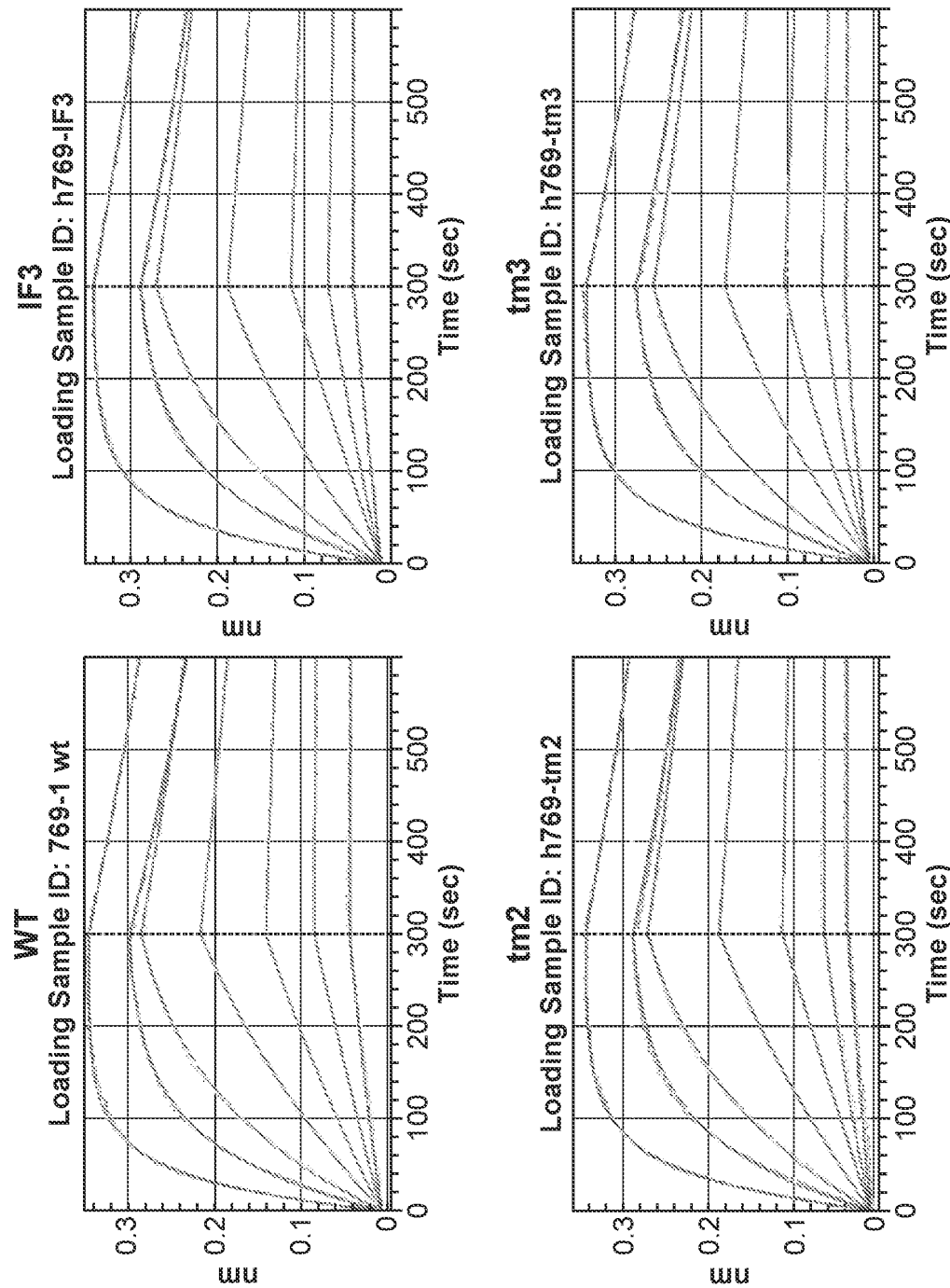
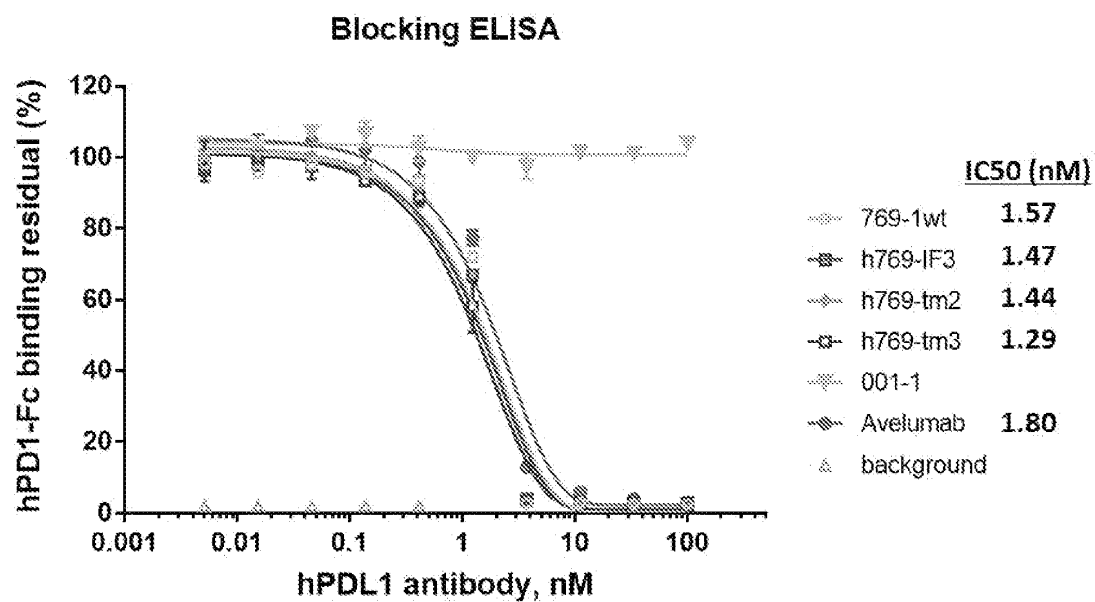


FIG. 23B

FIGURE 24



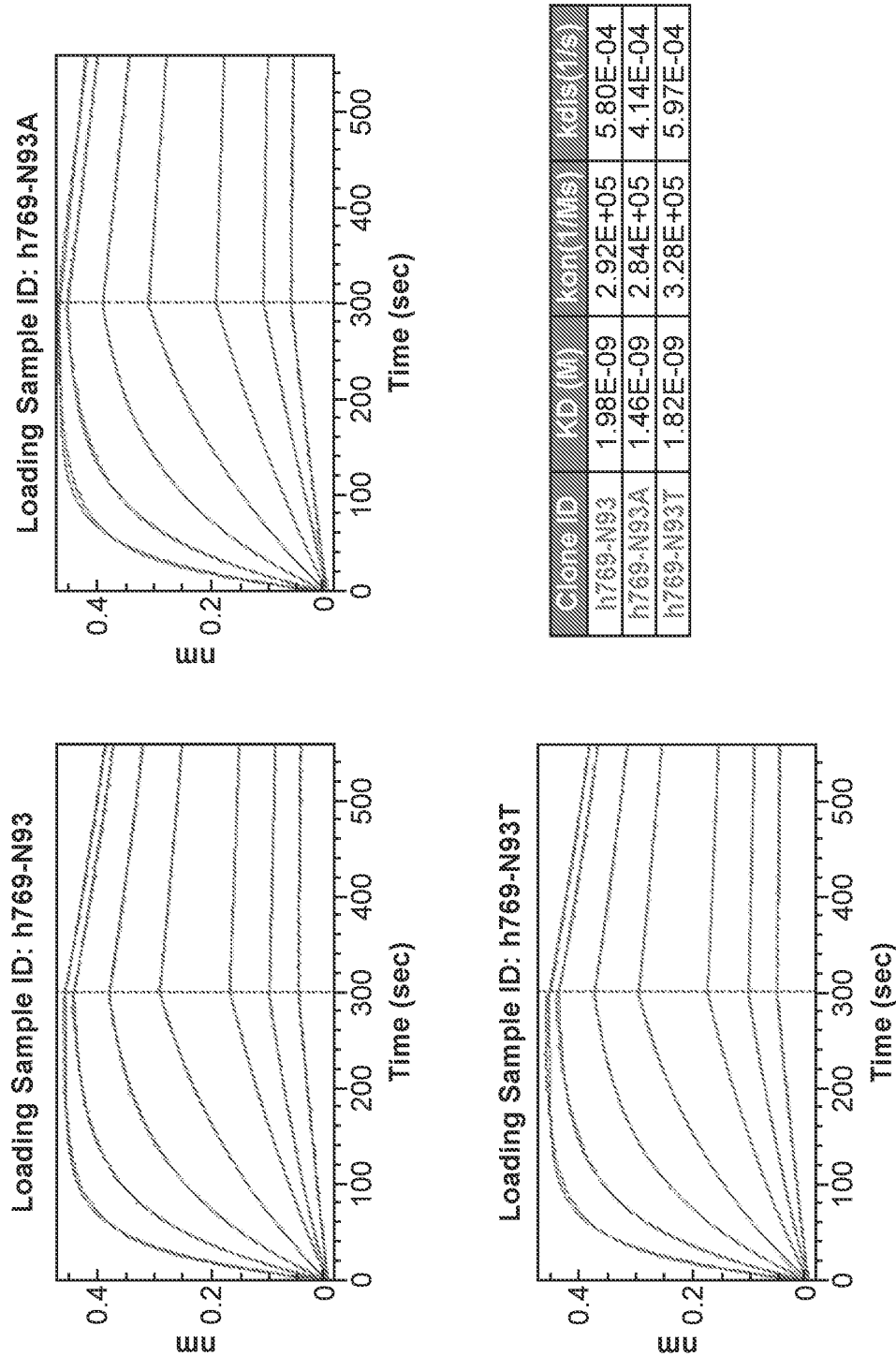


FIG. 25

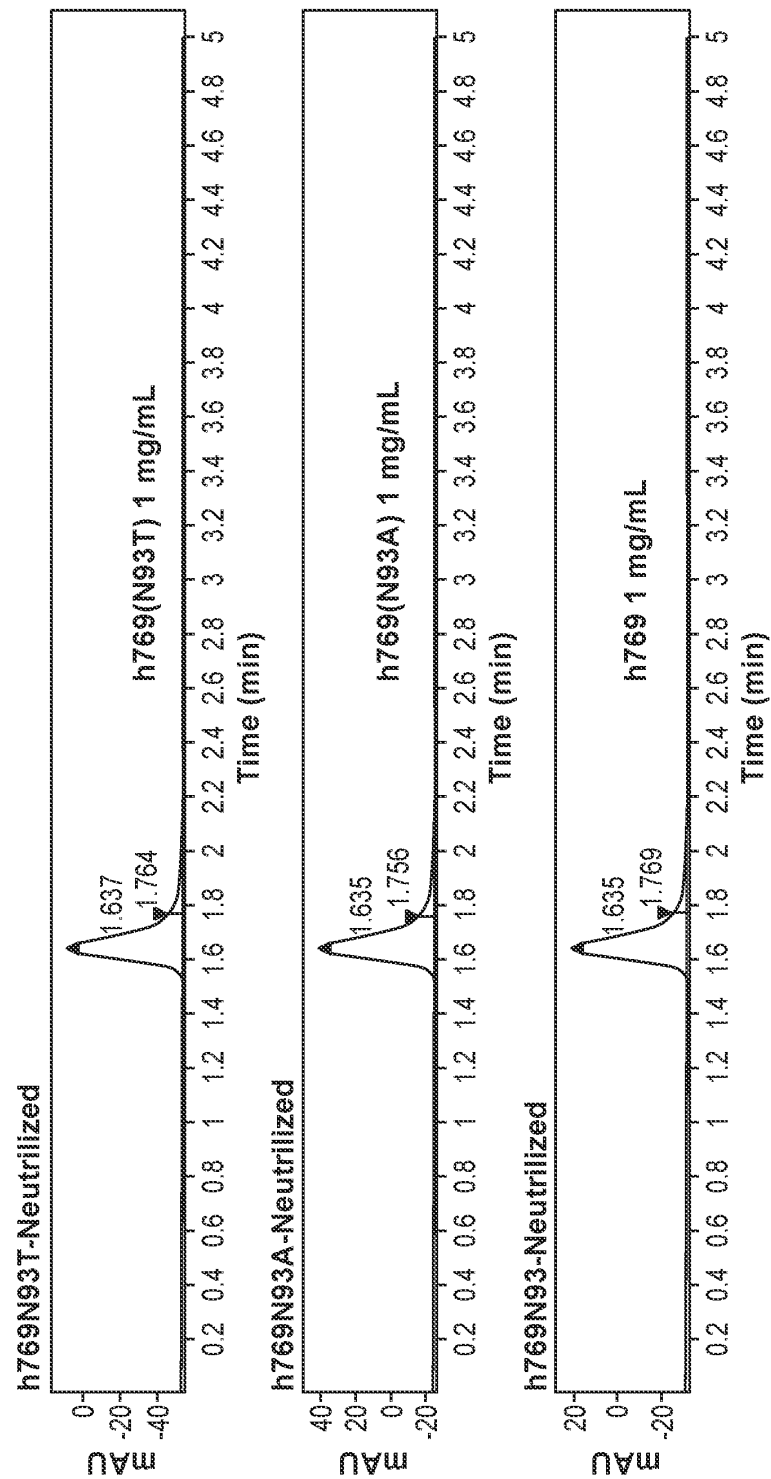


FIG. 26

FIGURE 27C

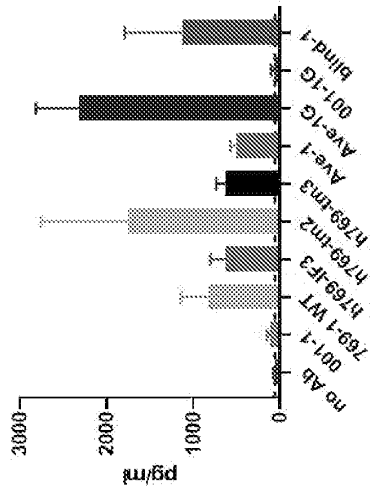


FIGURE 27B

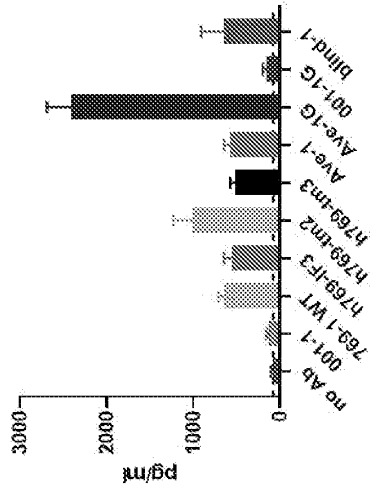


FIGURE 27A

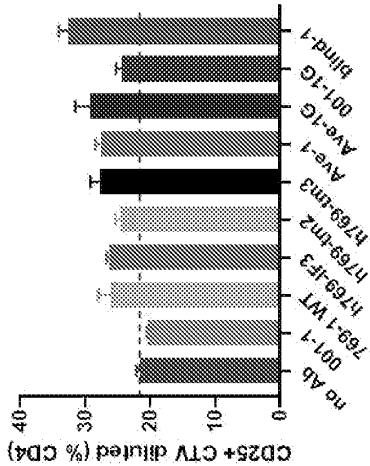


FIGURE 27F

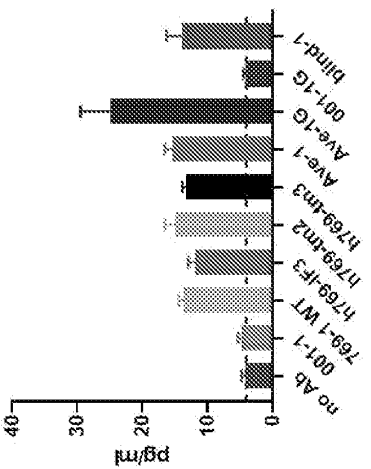


FIGURE 27E

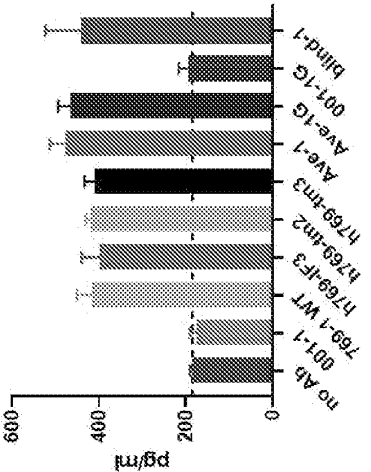


FIGURE 27D

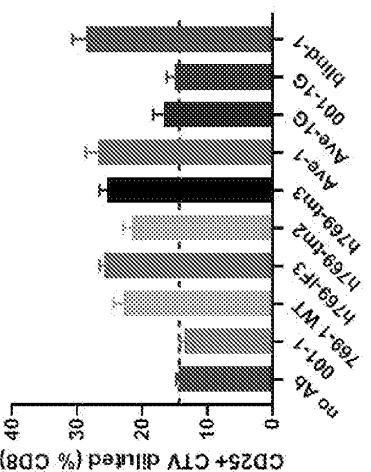


FIGURE 28A

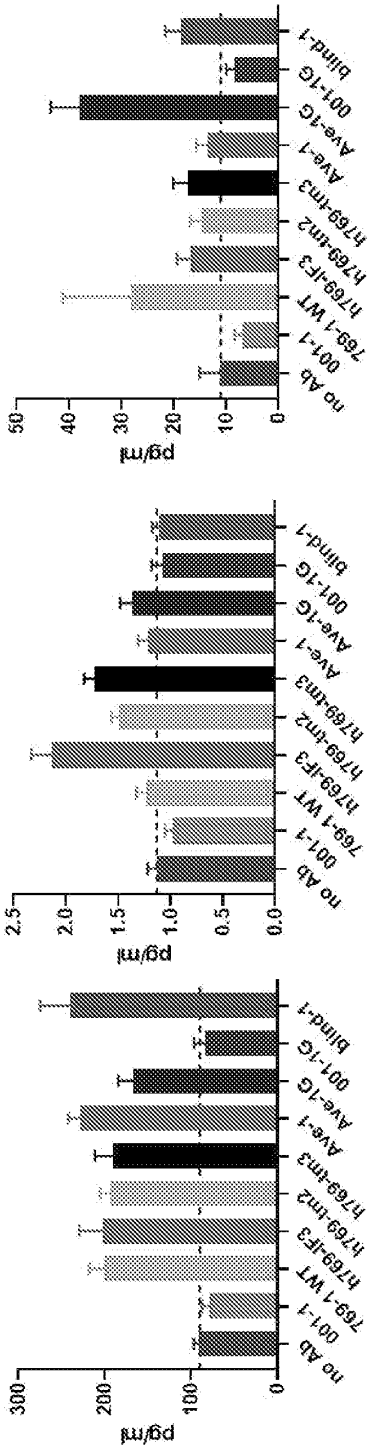


FIGURE 28B

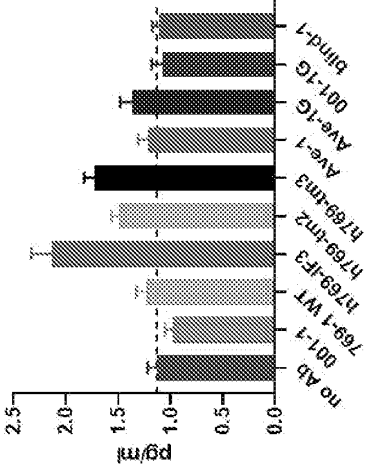


FIGURE 28C

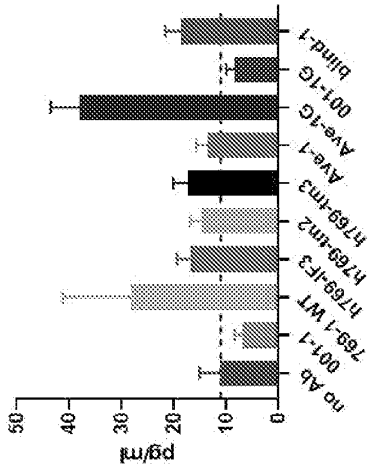


FIGURE 28D

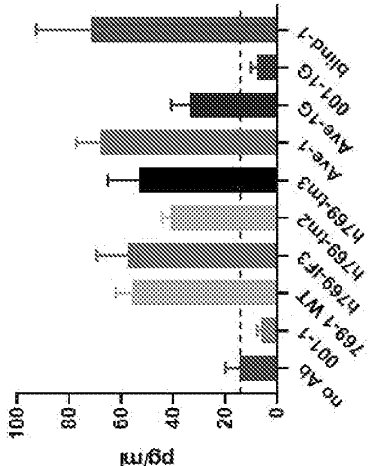


FIGURE 28E

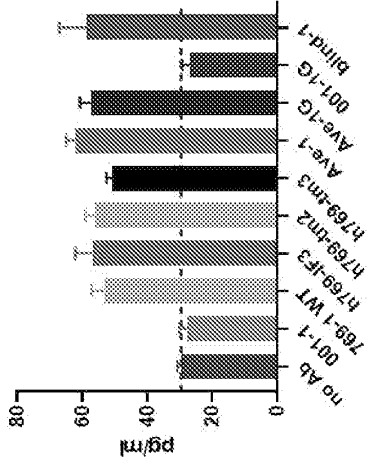


FIGURE 28F

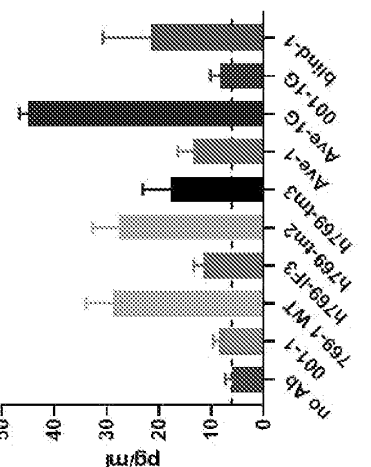


FIGURE 29A

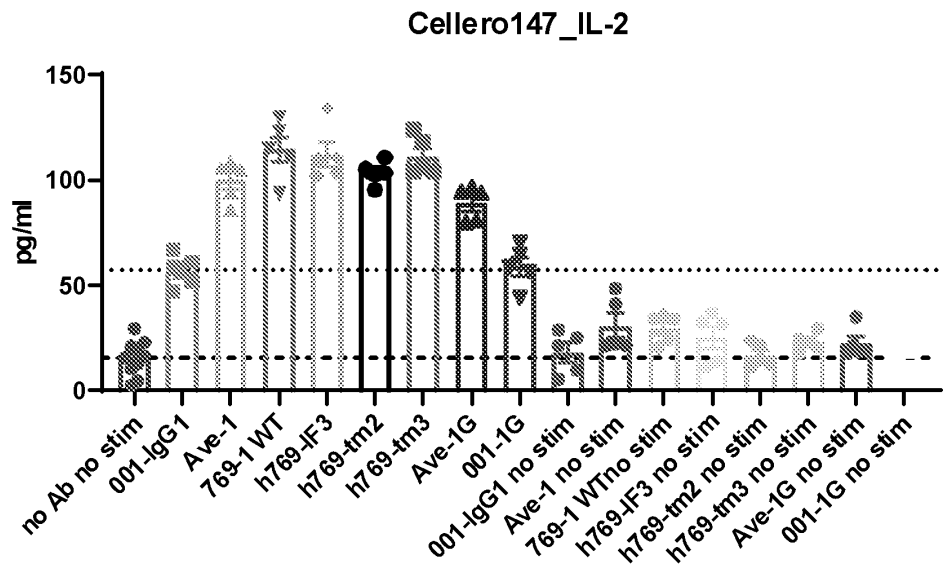


FIGURE 29B

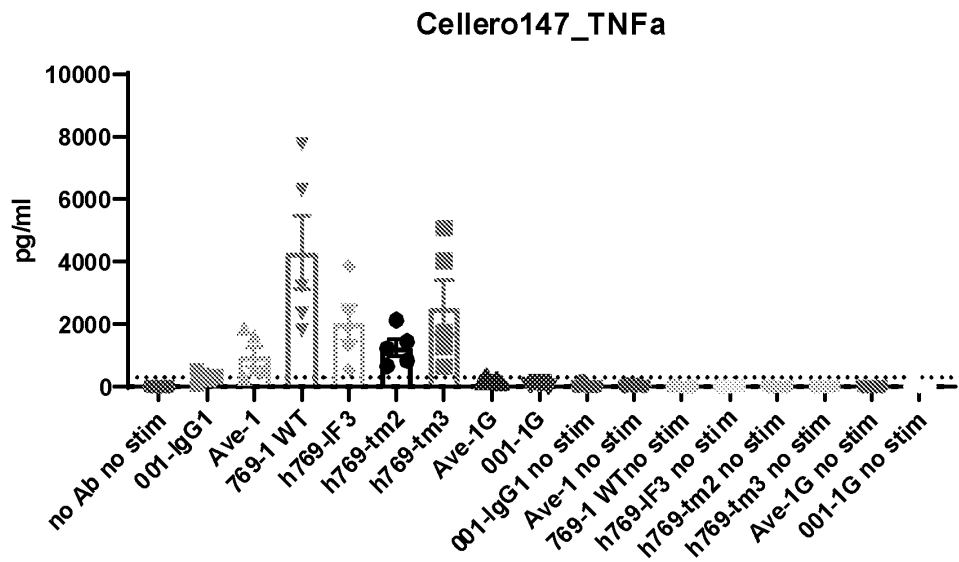


FIGURE 30A

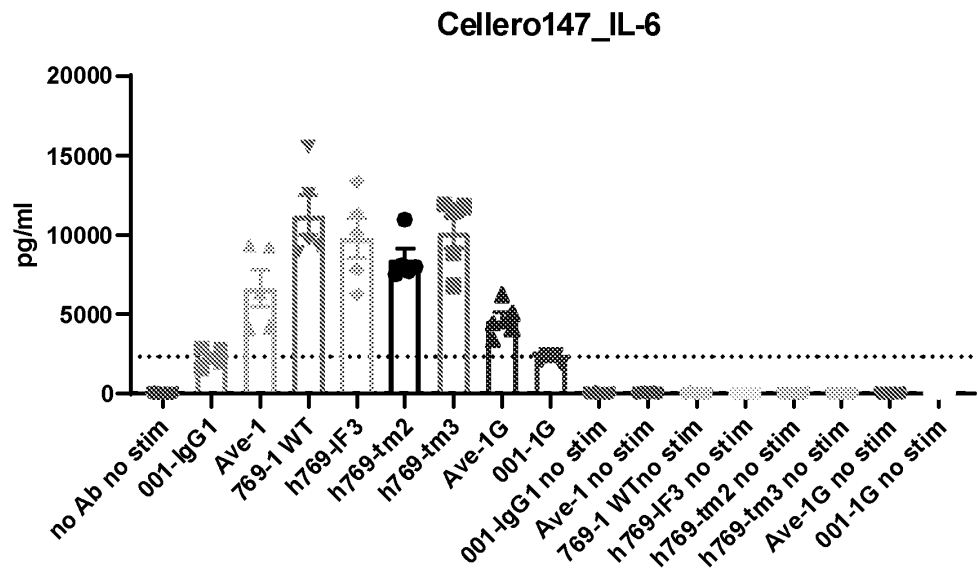


FIGURE 30B

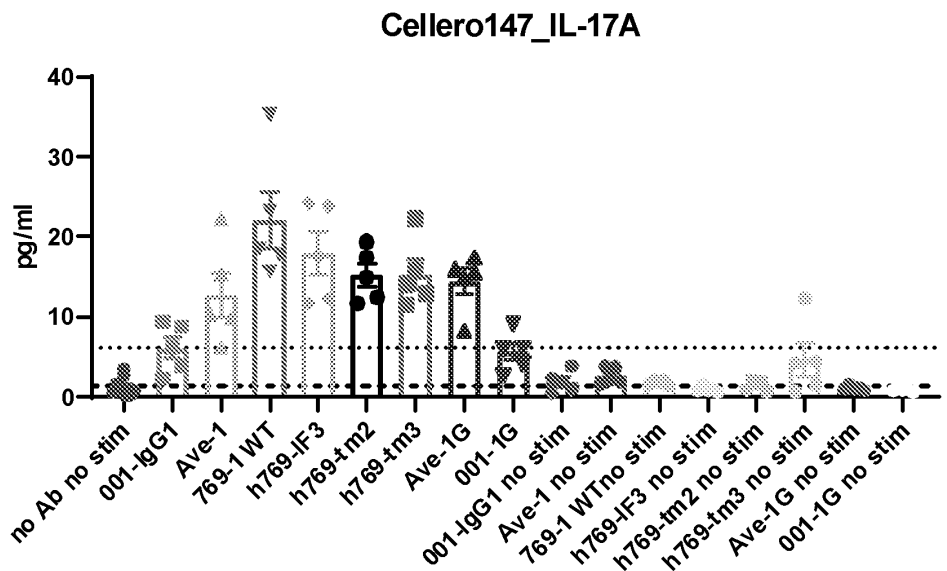


FIGURE 31A

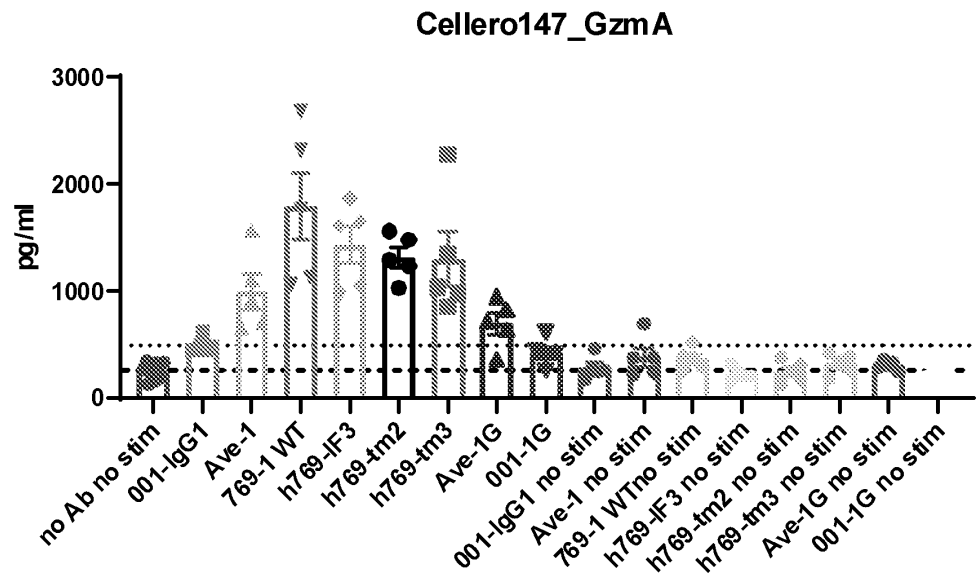


FIGURE 31B

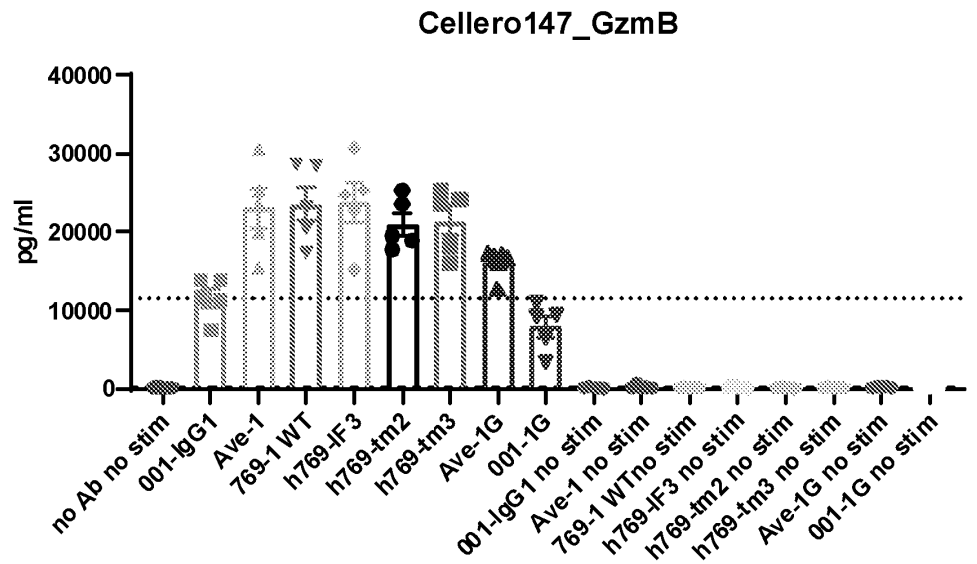


FIGURE 32A

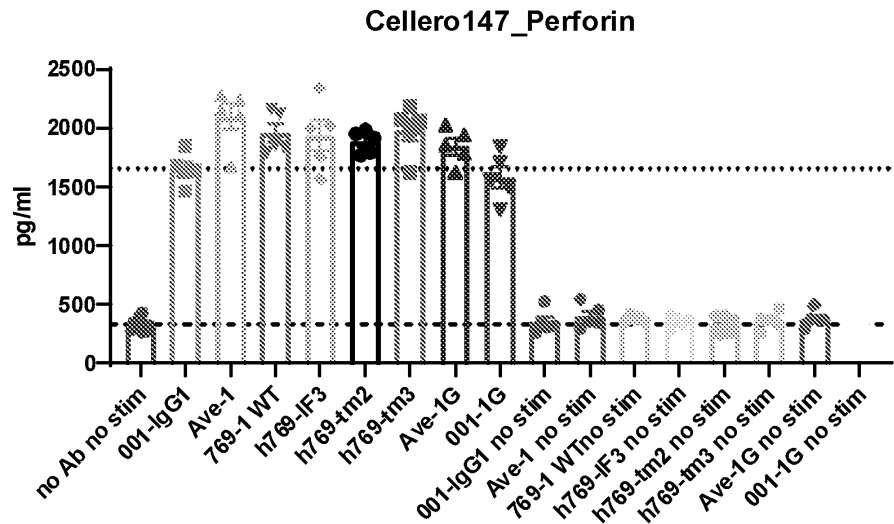


FIGURE 32B

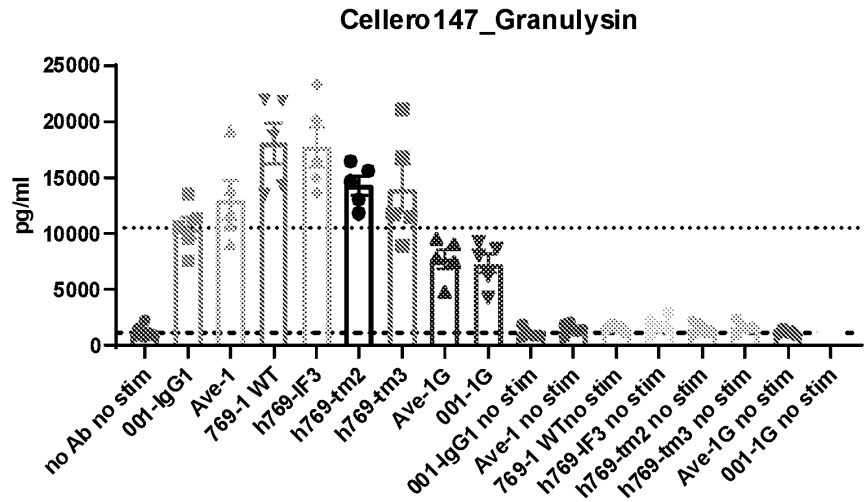
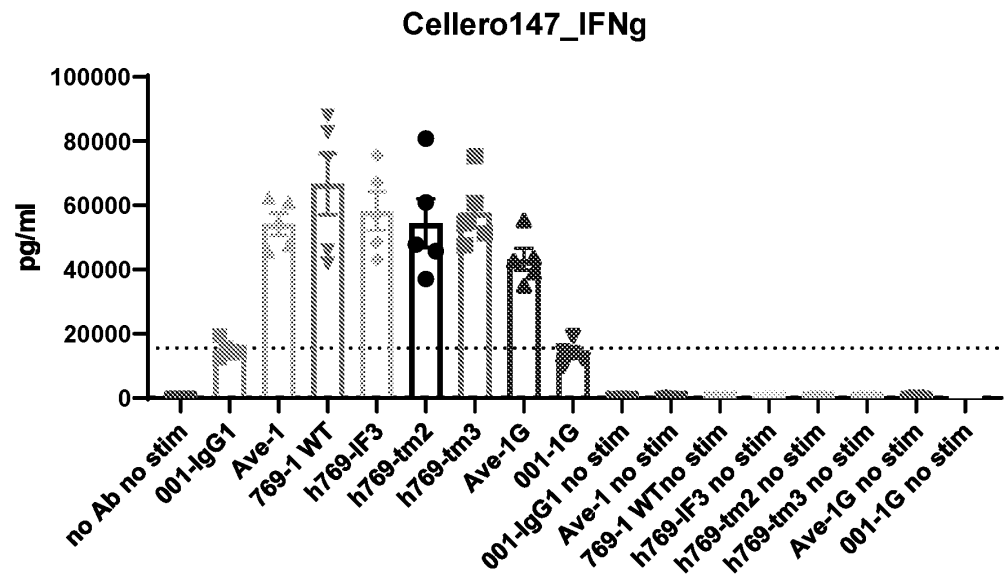


FIGURE 33



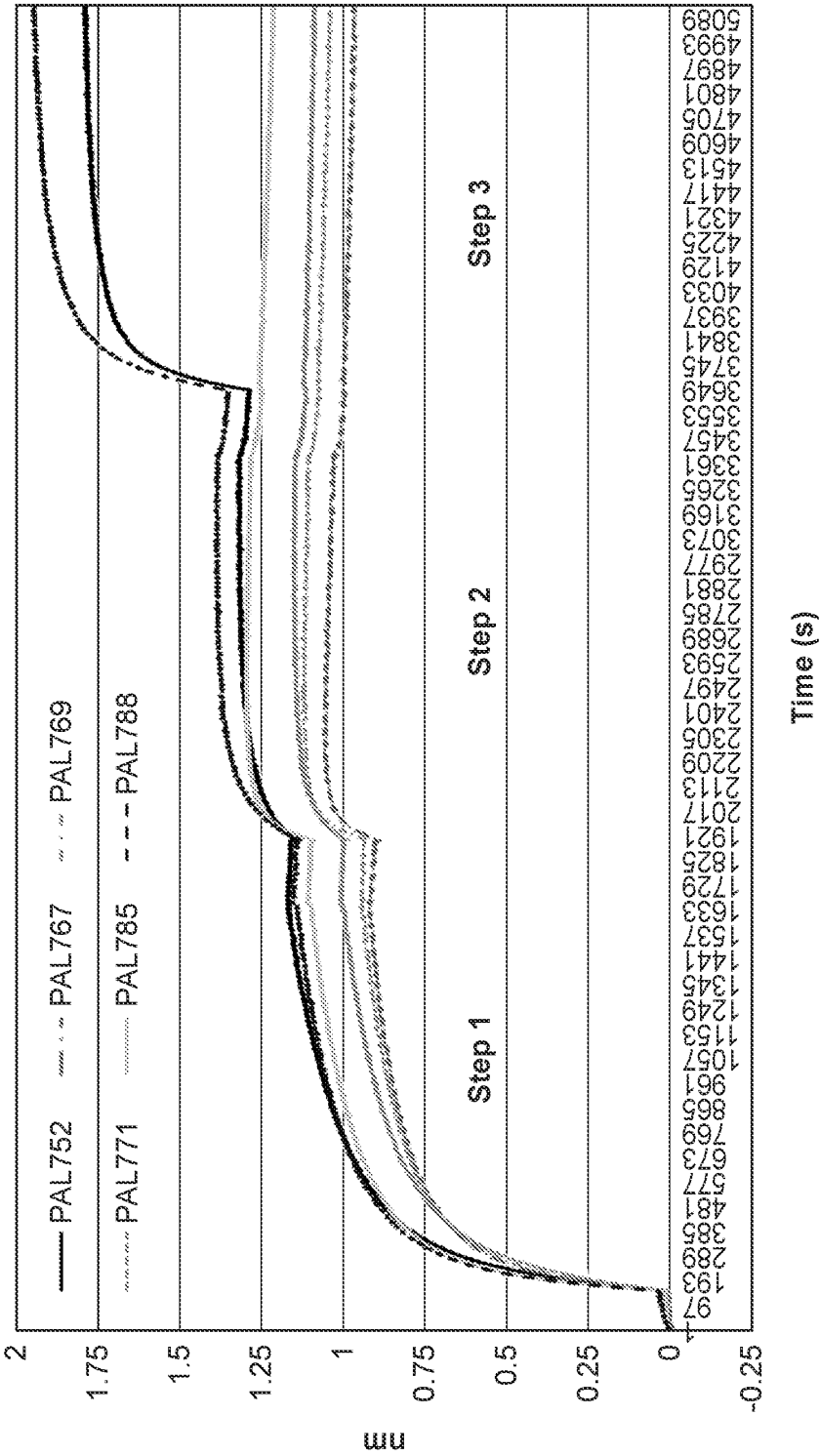


FIG. 34

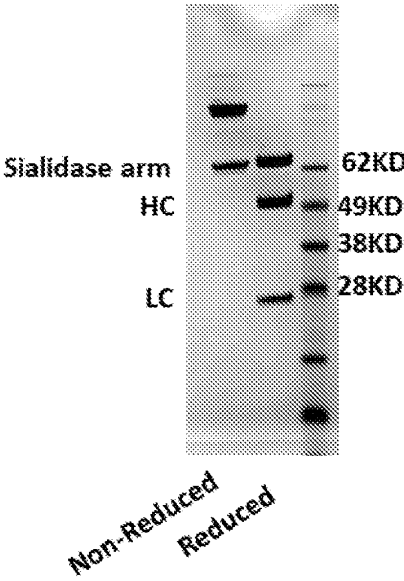


FIG. 35A

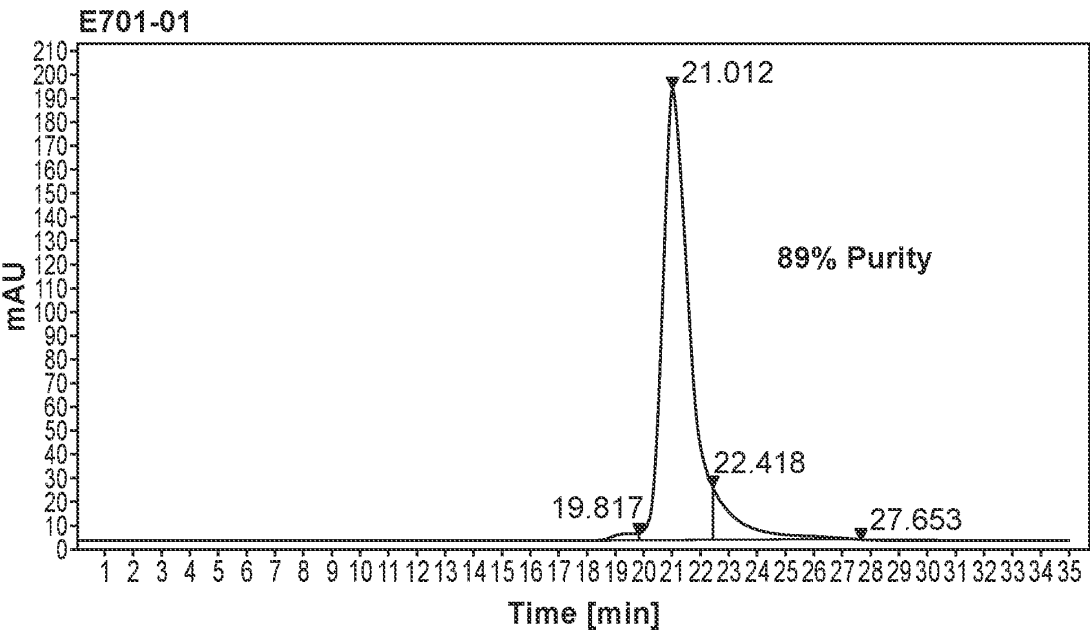


FIG. 35B

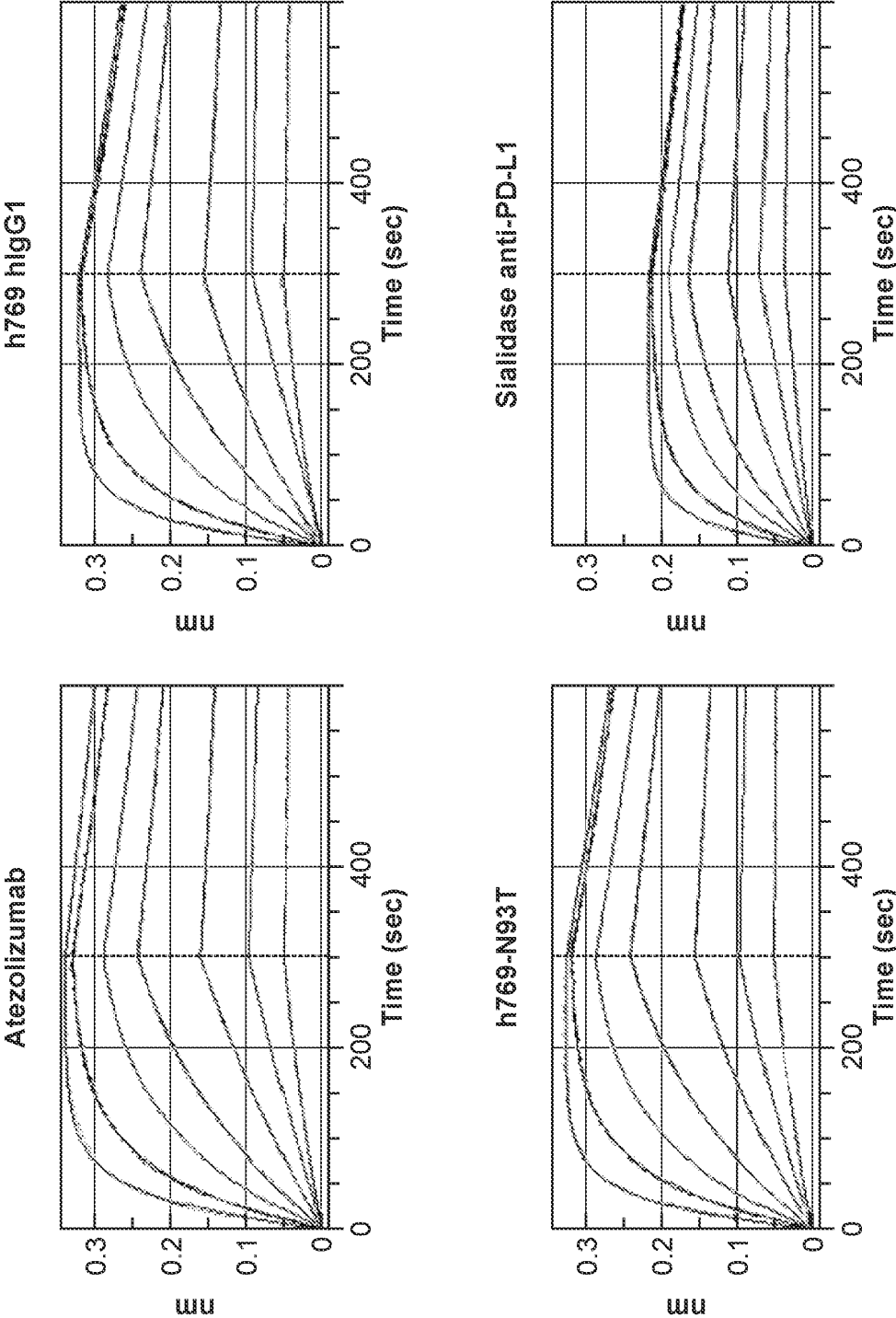


FIG. 36

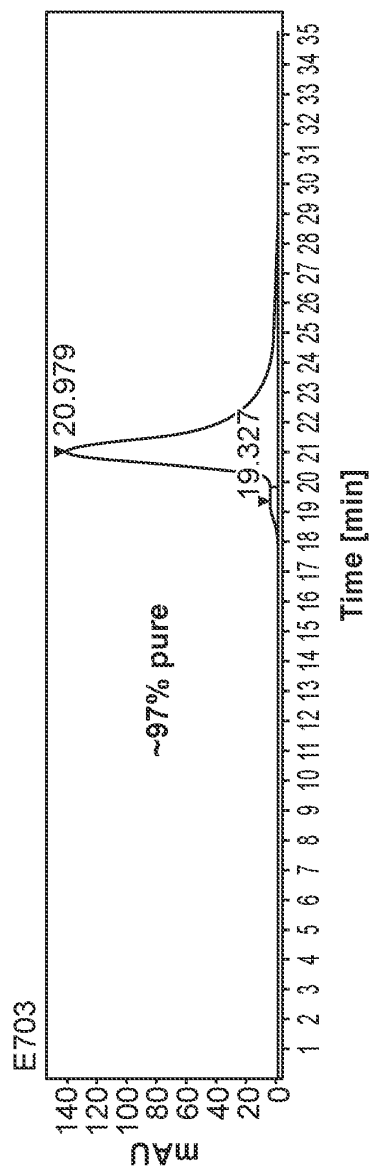


FIG. 37A

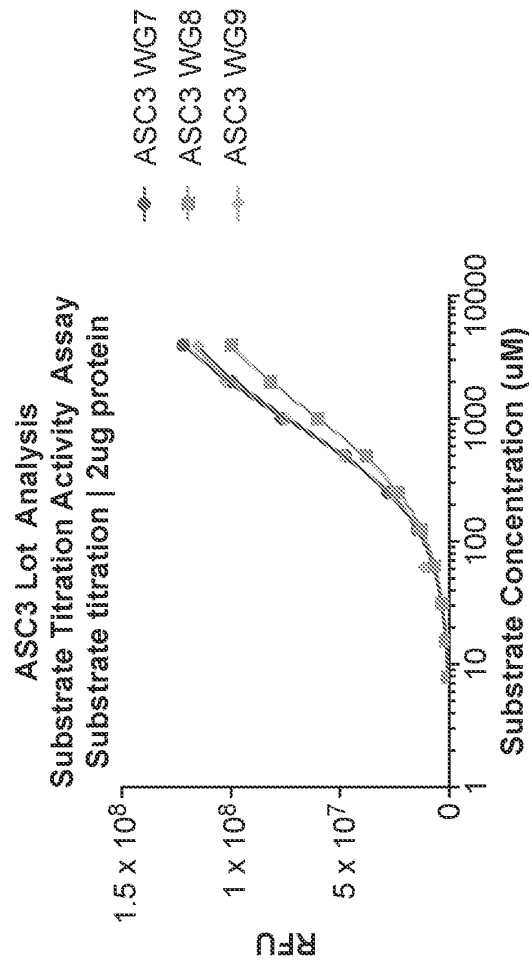


FIG. 37B

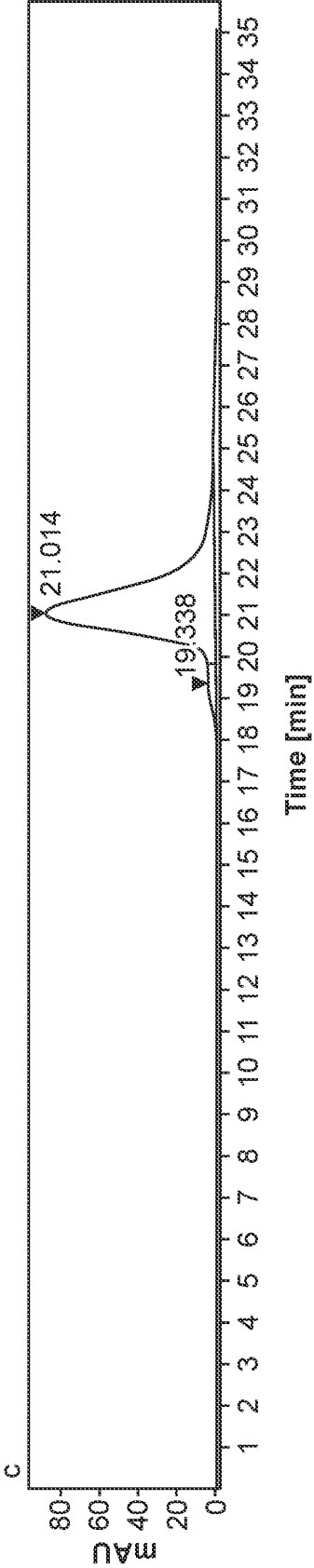


FIG. 38

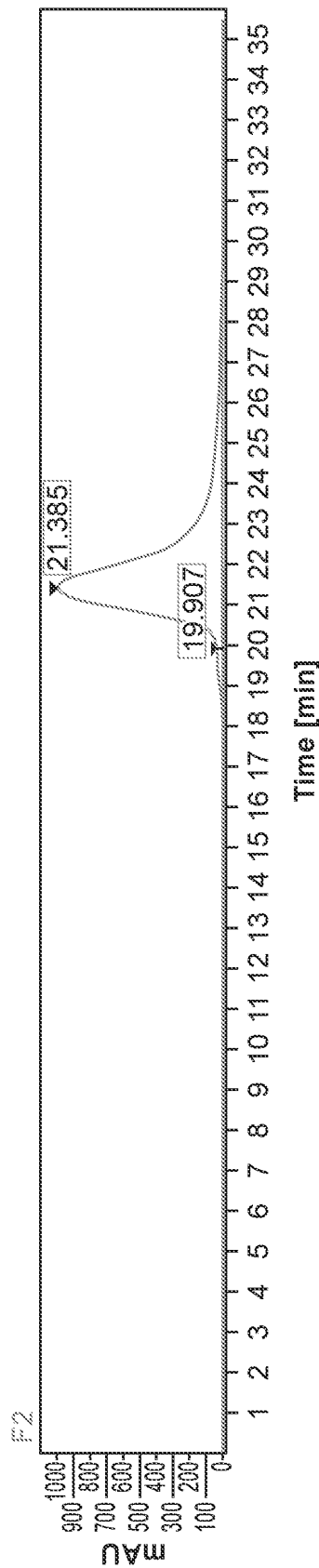


FIG. 39A

PD-L1 Eagle Analysis
Substrate Titration Activity Assay
Substrate titration | 2ug protein

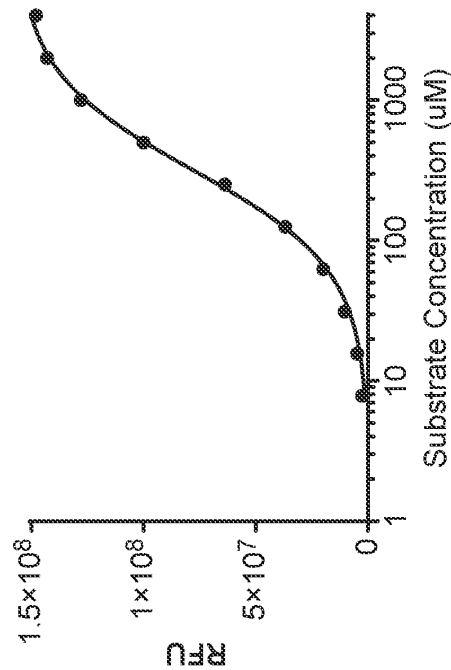


FIG. 39B

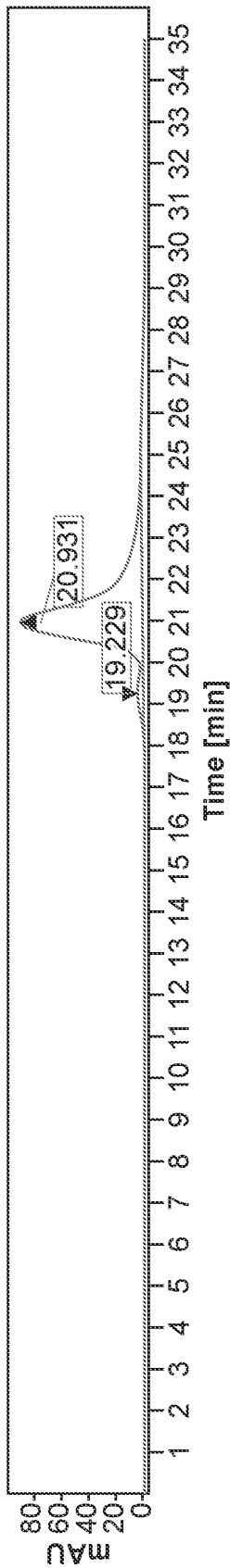


FIG. 40A

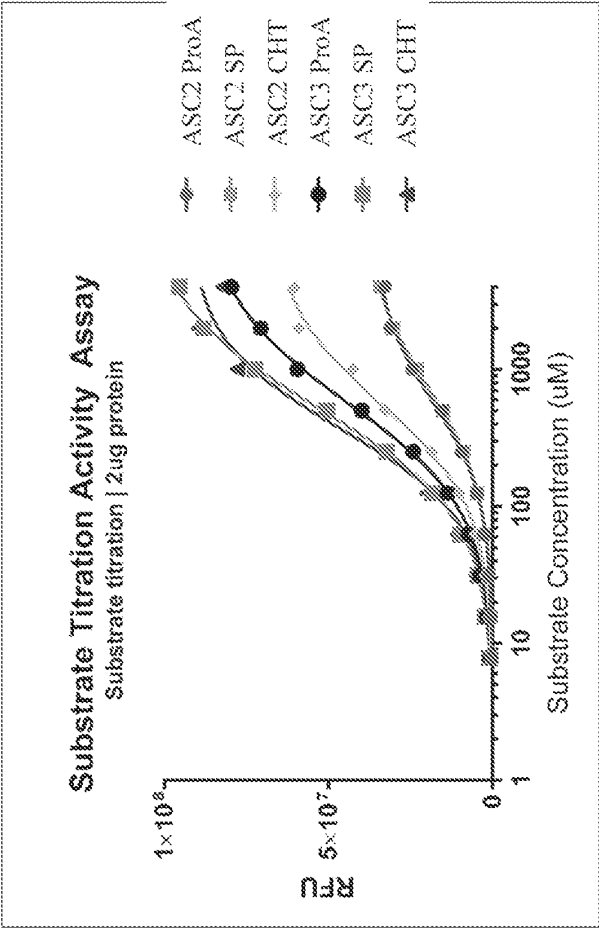


FIG. 40B

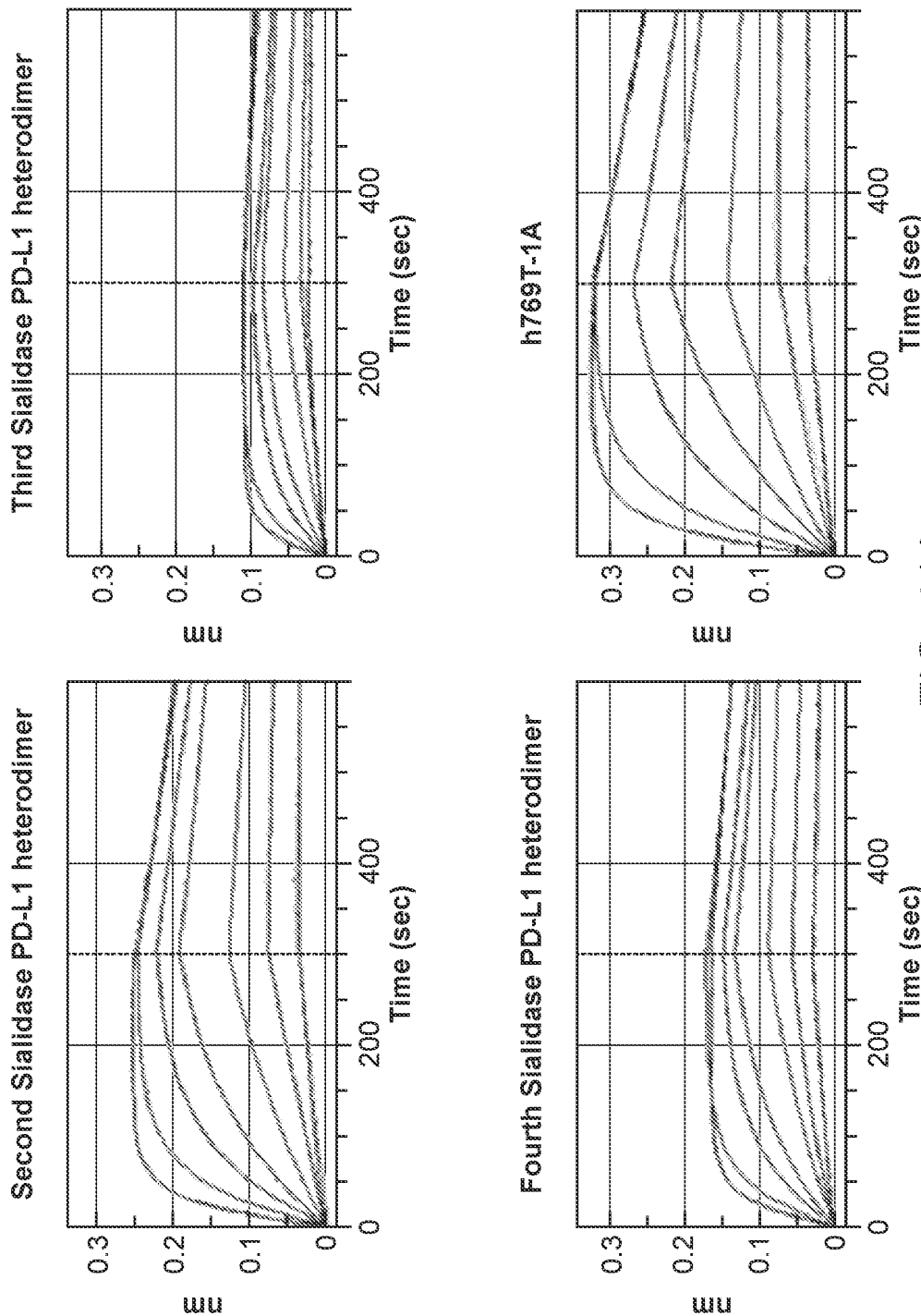


FIG. 41A

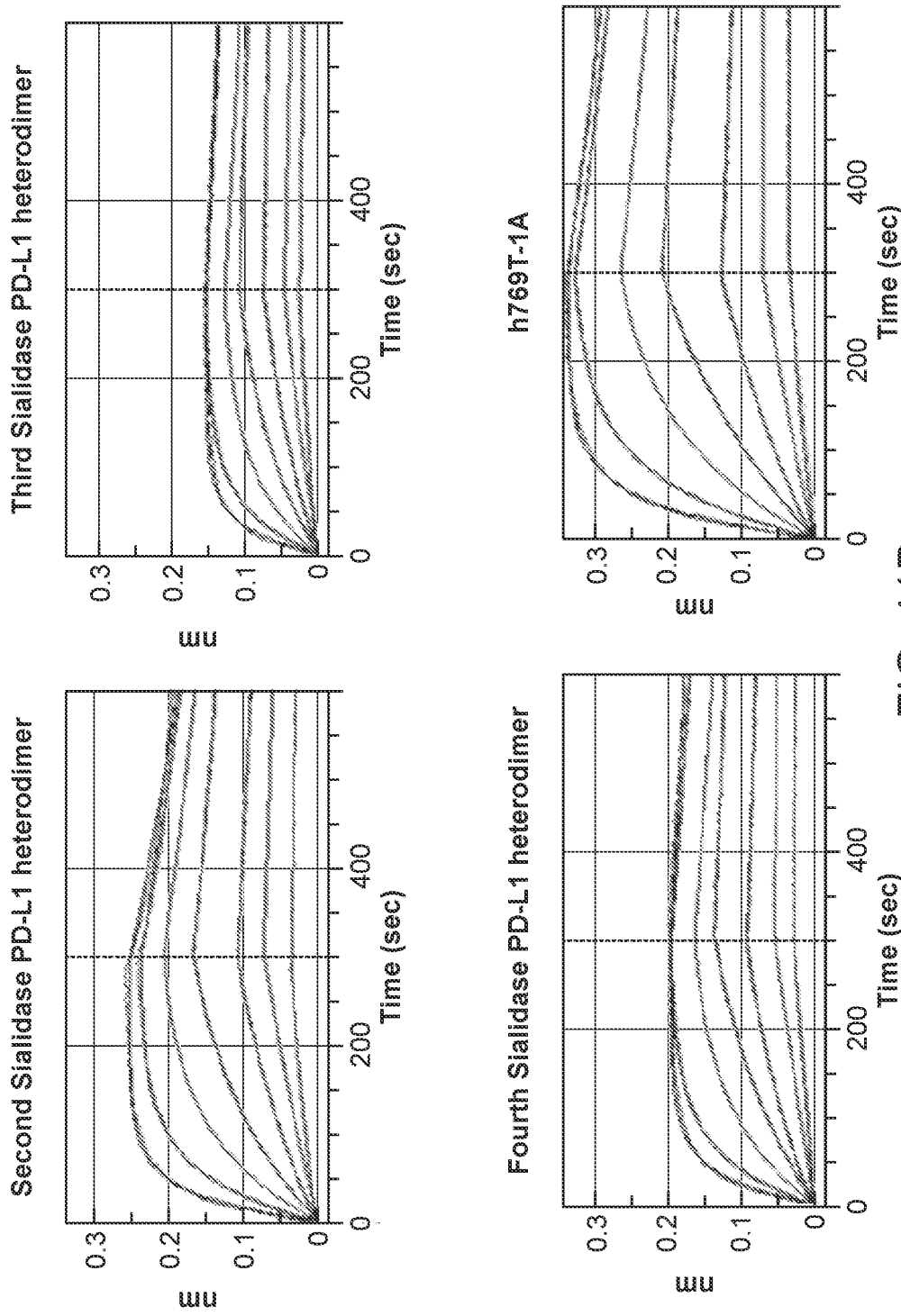


FIG. 41B

FIGURE 42A

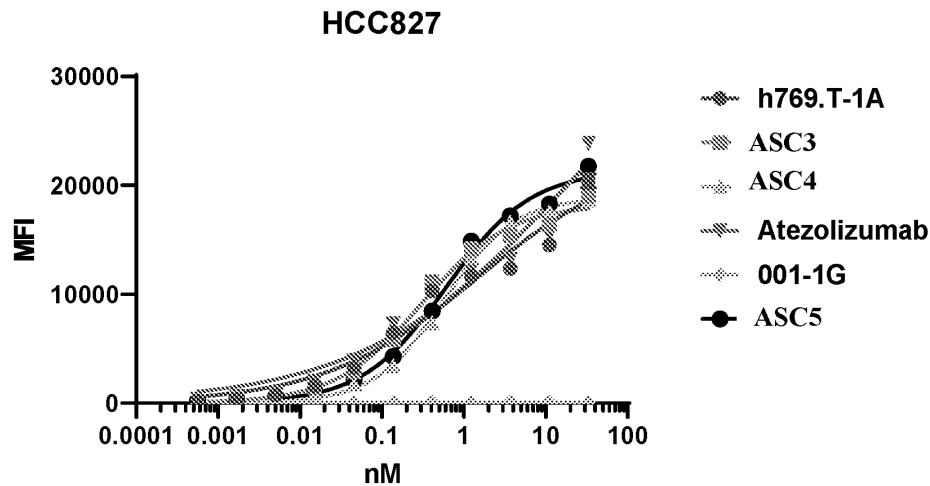


FIGURE 42B

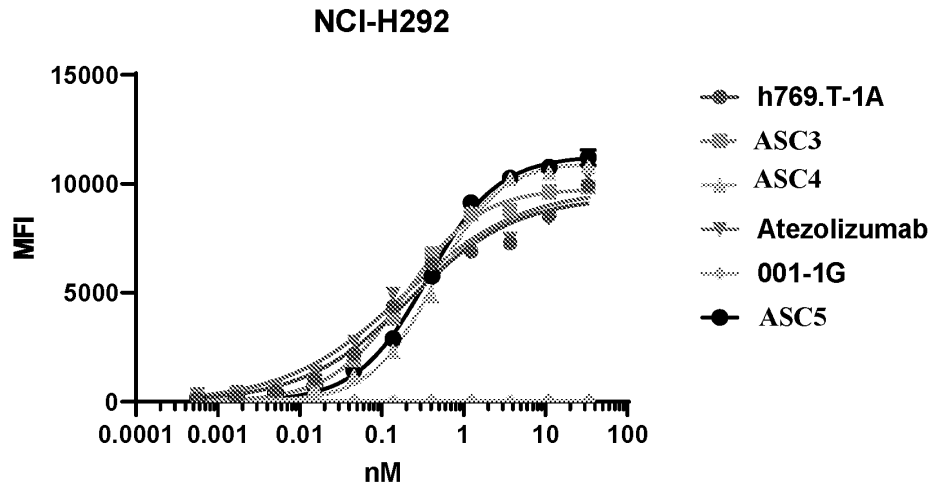


FIGURE 43A

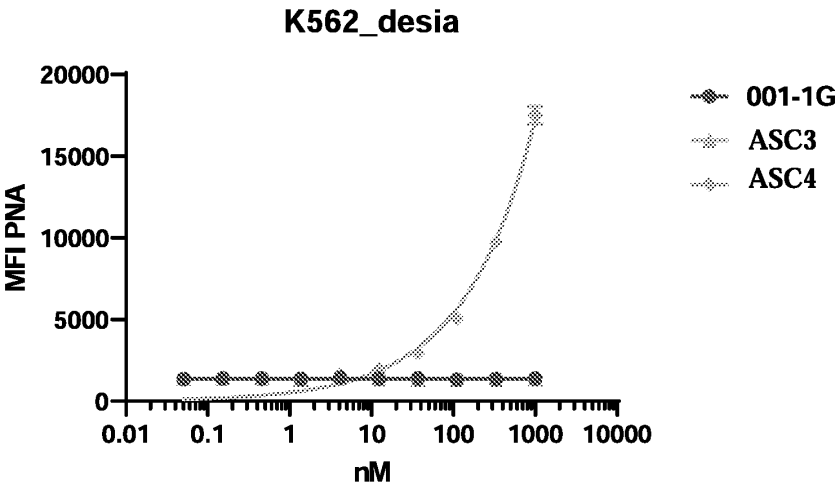


FIGURE 43B

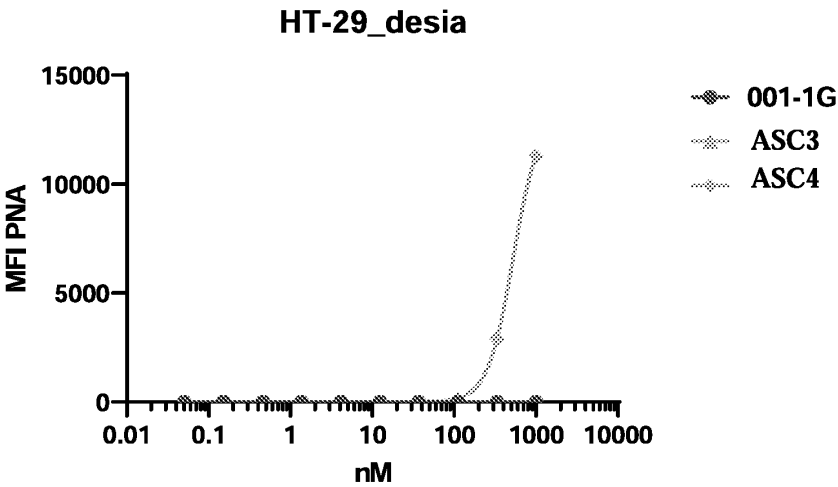


FIGURE 44A

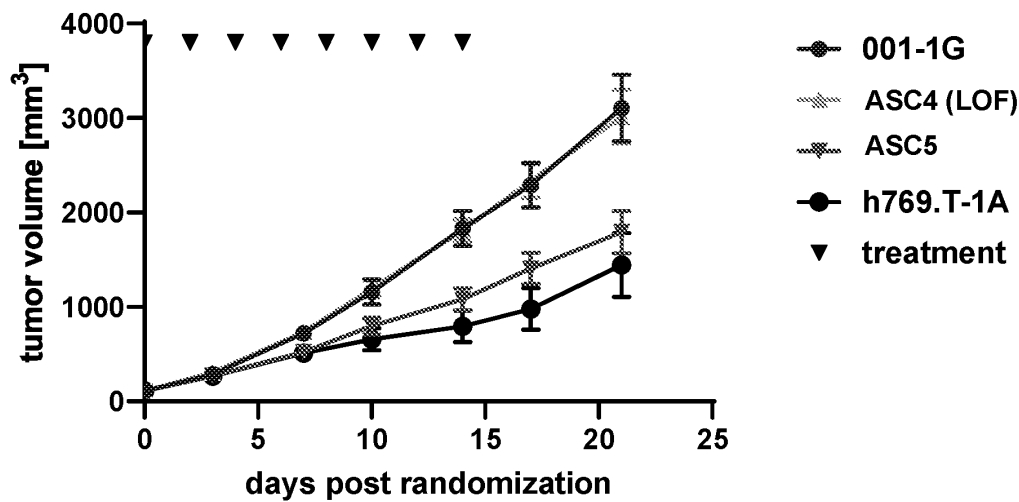


FIGURE 44B

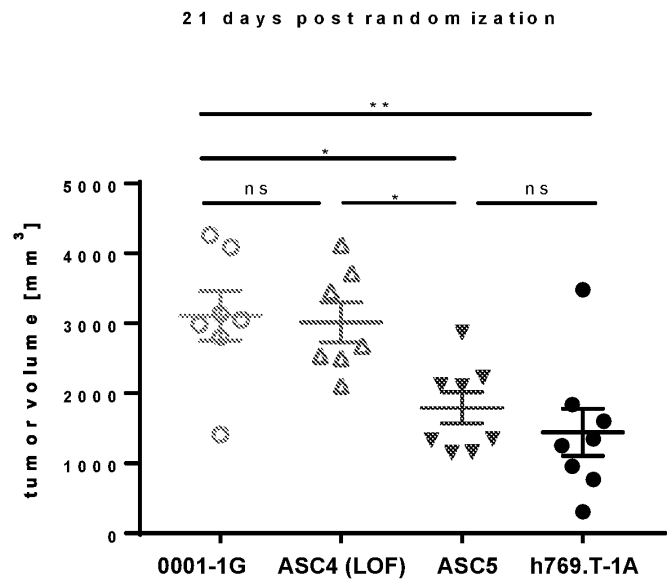


FIGURE 45

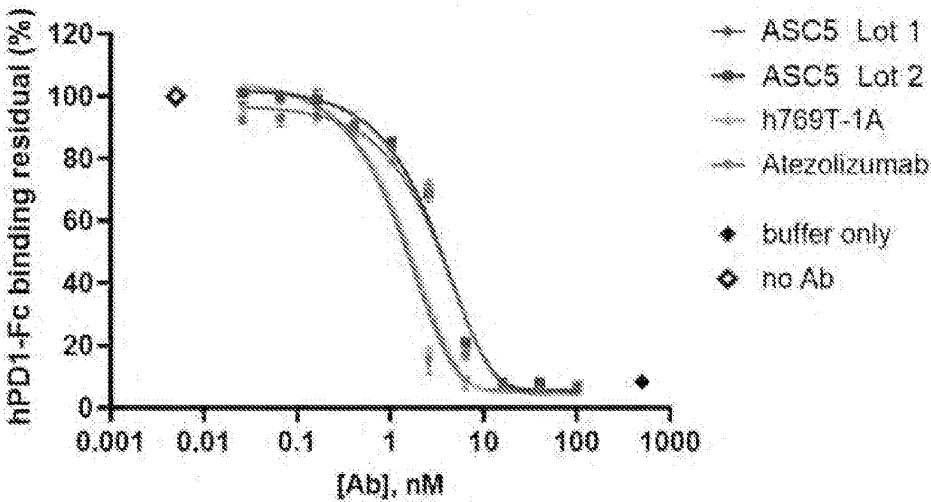


FIGURE 46

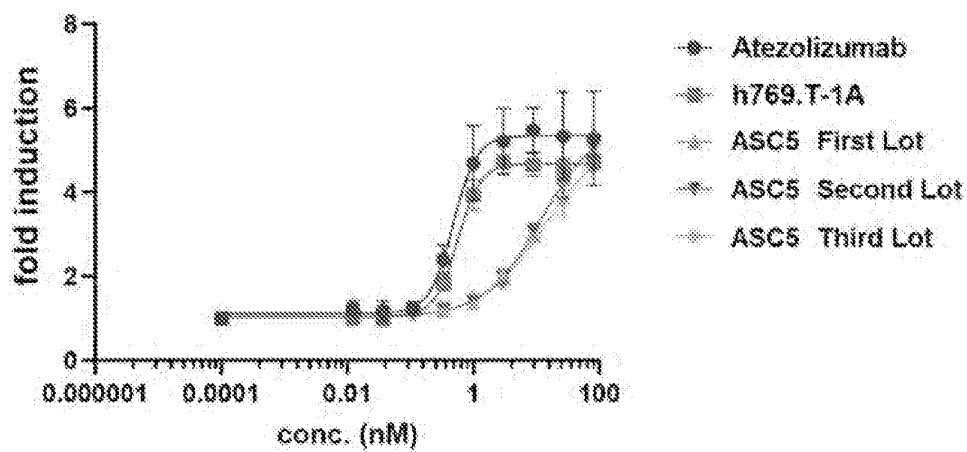


FIGURE 47A

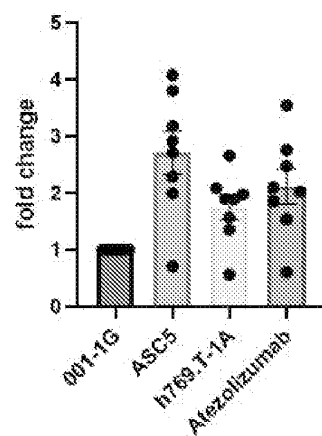


FIGURE 47B

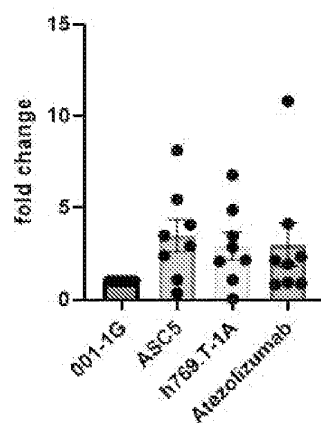


FIGURE 47C

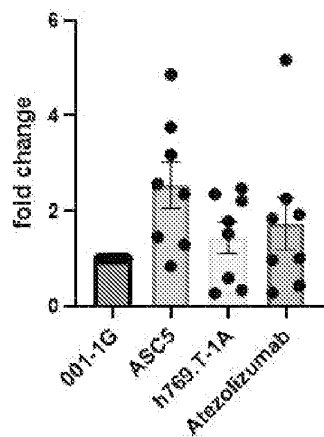


FIGURE 47D

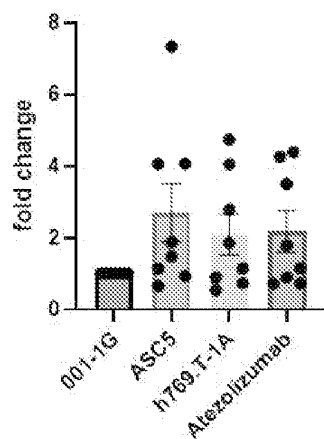


FIGURE 48A

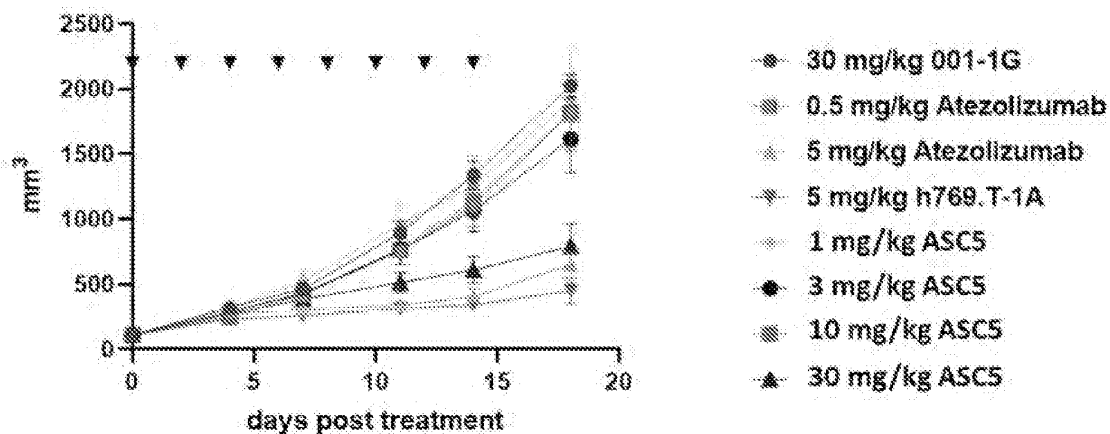


FIGURE 48B

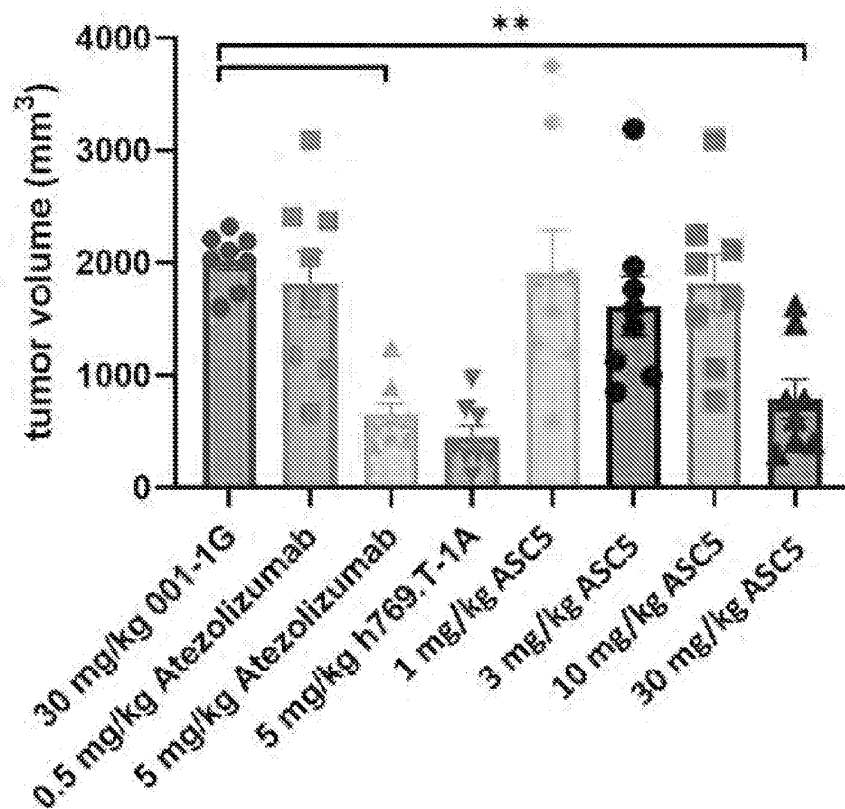


FIGURE 49A

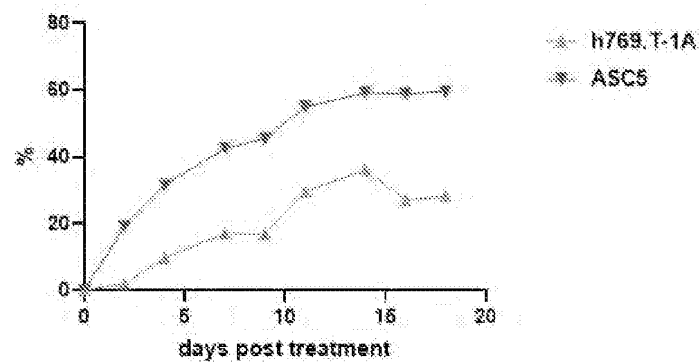


FIGURE 49B

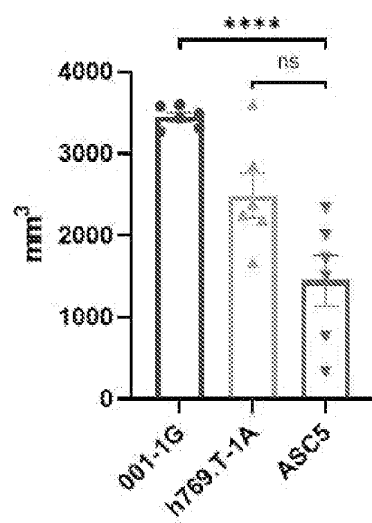


FIGURE 50A

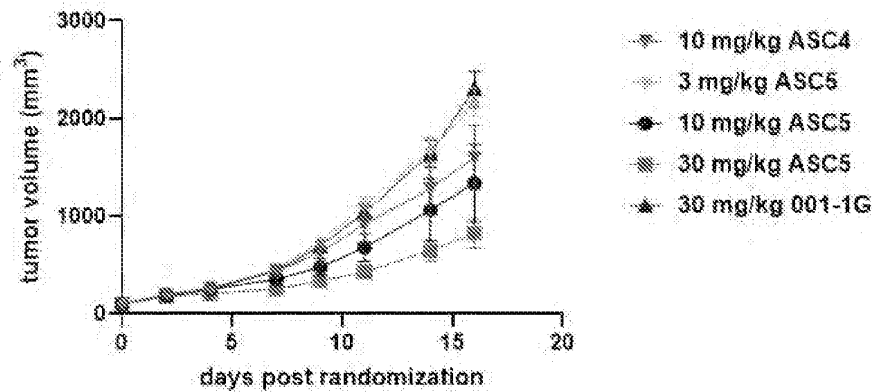


FIGURE 50B

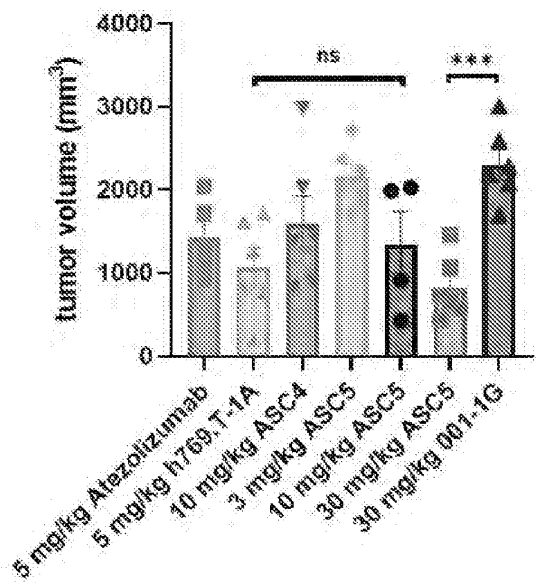


FIGURE 51A

SEQ ID NO: 164	EVQIQFSGAEIVKPGASVTL SCTASCFN IKDTYMEHWYKORPEQGLEWICR IDPANDNTKY	60
SEQ ID NO: 199	EVQLVQSGAEVKKPGATVK ISCKVSGFN IKDTYMEHWYQAPGKGLEWMGL IDPANDNTLY	60
SEQ ID NO: 164	DKPFQDKATITADTSSDTAYLR LSSLTSEDFAVYVCAREGYGSGYGEYWGQCITLTVSS	120
SEQ ID NO: 199	AERFQCRVTITADTSTDYAMR LSSLRSEDFAVYVCAREGYGSGYGEYWGQCITLTVSS	120

FIGURE 51B

SEQ ID NO: 167	SIIVMTQTPKFLVLSAGDRVTITCKASQSVSNDVIWYQKPGQSPKLLIYYASIRFTGVDP	60
SEQ ID NO: 242	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASTRATGIPA	60
SEQ ID NO: 243	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRATGIPA	60
SEQ ID NO: 244	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRFTGIPA	60
SEQ ID NO: 245	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASTRATGIPA	60
SEQ ID NO: 246	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASTRATGIPA	60
SEQ ID NO: 247	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRATGIPA	60
SEQ ID NO: 248	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRATGIPA	60
SEQ ID NO: 249	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRATGIPA	60
SEQ ID NO: 200	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRFTGIPA	60
SEQ ID NO: 201	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRATGIPA	60
SEQ ID NO: 202	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRFTGIPA	60
SEQ ID NO: 204	EIVMTQSPPTLSLSPGERVTLSCRASQSVSNDLSWYQKPGQAPRLLIYYASIRFTGIPA	60

SEQ ID NO: 167	RFACSCYCTDFTFTINTVQAE DLAWFCQDYNSPWTFGGCTKLEIK	107
SEQ ID NO: 242	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 243	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 244	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 245	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 246	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 247	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 248	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 249	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 200	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 201	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 202	RFSCSGCTDFTLTISLQPEDFAVYQCQDYNSPWTFGGTKVEIK	107
SEQ ID NO: 204	RFSCSGCTDFTLTISLQPEDFAVYQCQDYTSPTWTFGGTKVEIK	107