

Figure 1

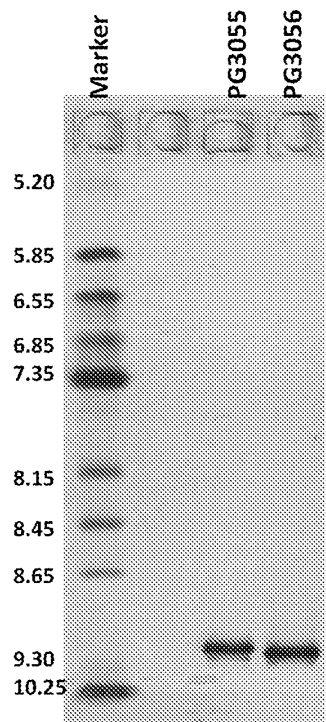


Figure 2

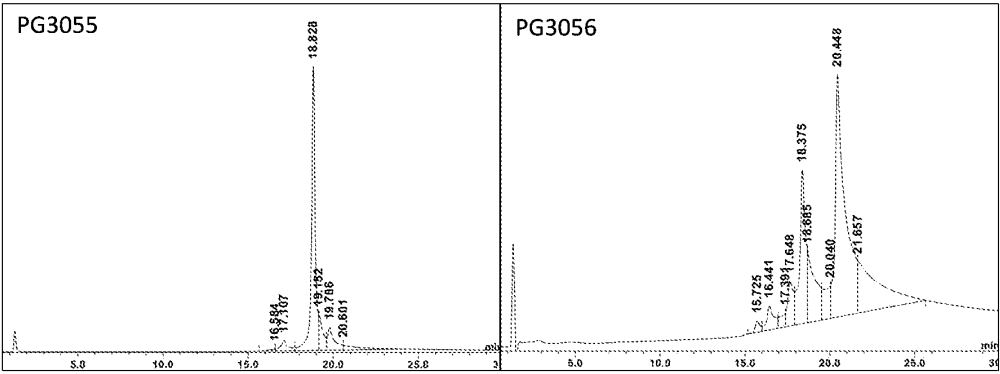


Figure 3

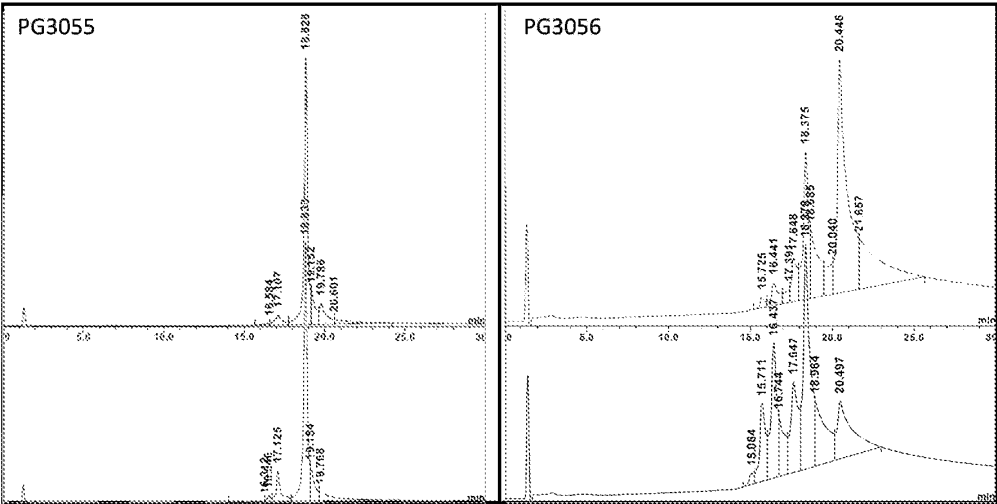


Figure 4

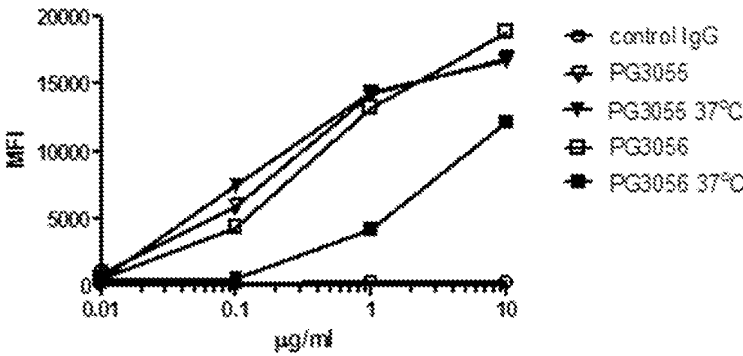


Figure 5

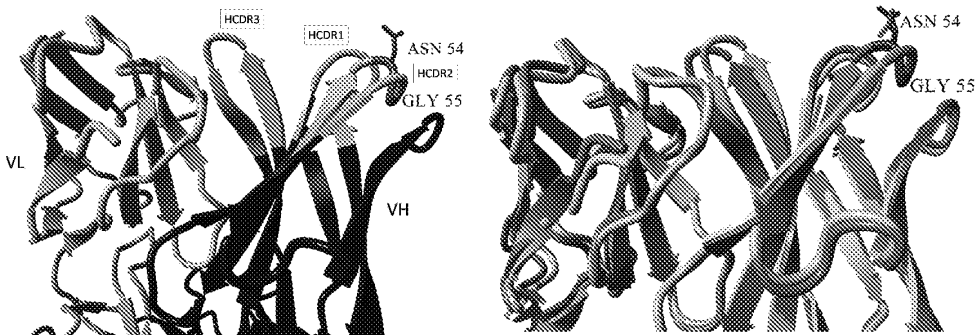


Figure 6

		1		50
3-33_VH	(1)	QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAV		
MF3056_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA		
Consensus	(1)	QVQLV SGGGVVQPGRSLRLSC ASGFTFSSYGMHWVRQAPGKGLEWVA		
		51		100
3-33_VH	(51)	IWYDGSNKYYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCAR--		
MF3056_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
Consensus	(51)	IWY G YADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYC R		
		101	115	
3-33_VH	(99)	-----		
MF3056_VH	(101)	GYNWFDPWGQGLVT		
Consensus	(101)			

Figure 7

		1		50
MF3056_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA		
MF3872_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA		
MF3873_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA		
MF3905_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA		
		51		100
MF3056_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
MF3872_VH	(51)	IWYSGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
MF3873_VH	(51)	IWYQGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
MF3905_VH	(51)	IWYGGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
		101	118	
MF3056_VH	(101)	GYNWFDPWGQGLVTVSS		
MF3872_VH	(101)	GYNWFDPWGQGLVTVSS		
MF3873_VH	(101)	GYNWFDPWGQGLVTVSS		
MF3905_VH	(101)	GYNWFDPWGQGLVTVSS		

Figure 8

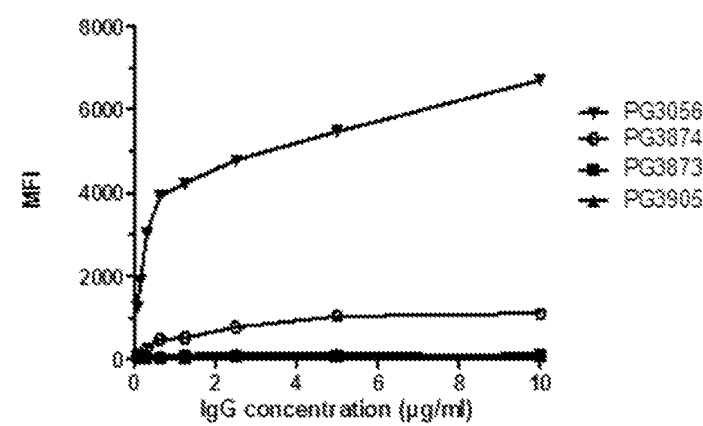


Figure 9

		1	50
MF3056_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF3874_VH	(1)	QVQLVESGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF3878_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF3883_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAV	
MF3886_VH	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF3891_VH	(1)	QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAA	
Consensus	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
		51	100
MF3056_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF3874_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF3878_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF3883_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF3886_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCARGT	
MF3891_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCARGT	
Consensus	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
		101	118
MF3056_VH	(101)	GYNWFDPWGQGTLVTVSS	
MF3874_VH	(101)	GYNWFDPWGQGTLVTVSS	
MF3878_VH	(101)	GYNWFDPWGQGTLVTVSS	
MF3883_VH	(101)	GYNWFDPWGQGTLVTVSS	
MF3886_VH	(101)	GYNWFDPWGQGTLVTVSS	
MF3891_VH	(101)	GYNWFDPWGQGTLVTVSS	
Consensus	(101)	GYNWFDPWGQGTLVTVSS	

Figure 10

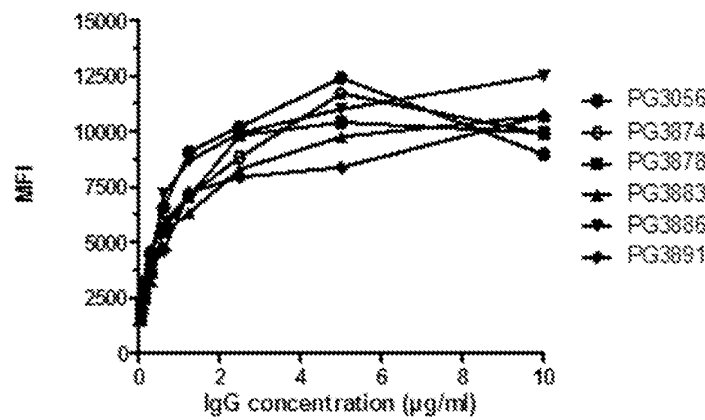


Figure 11

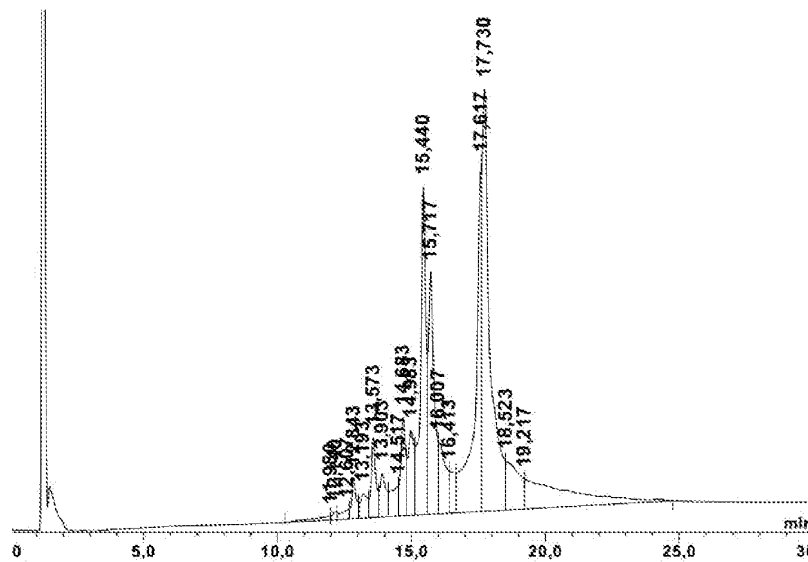


Figure 12

	1	50
MF3056_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
MF5192_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
MF5193_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
MF5194_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
MF5195_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
MF5196_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
MF5197_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
Consensus	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA
	51	100
MF3056_VH	(51)	IWYNGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
MF5192_VH	(51)	IWYHGRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
MF5193_VH	(51)	IWYHARKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
MF5194_VH	(51)	IWYHTRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
MF5195_VH	(51)	IWYHNRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
MF5196_VH	(51)	IWYHARKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
MF5197_VH	(51)	IWYNTRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
Consensus	(51)	IWYHARKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT
	101	118
MF3056_VH	(101)	GYNWFDPWGQGT LVTVSS
MF5192_VH	(101)	GYNWFDPWGQGT LVTVSS
MF5193_VH	(101)	GYNWFDPWGQGT LVTVSS
MF5194_VH	(101)	GYNWFDPWGQGT LVTVSS
MF5195_VH	(101)	GYNWFDPWGQGT LVTVSS
MF5196_VH	(101)	GYNWFDPWGQGT LVTVSS
MF5197_VH	(101)	GYNWFDPWGQGT LVTVSS
Consensus	(101)	GYNWFDPWGQGT LVTVSS

Figure 13

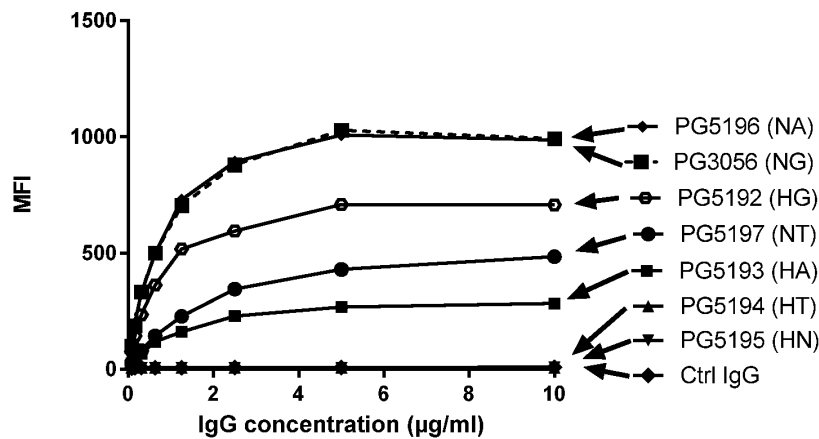


Figure 14

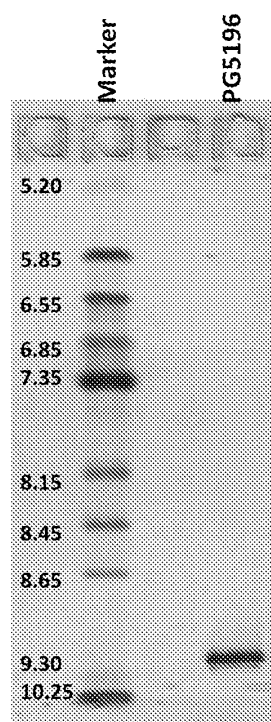


Figure 15

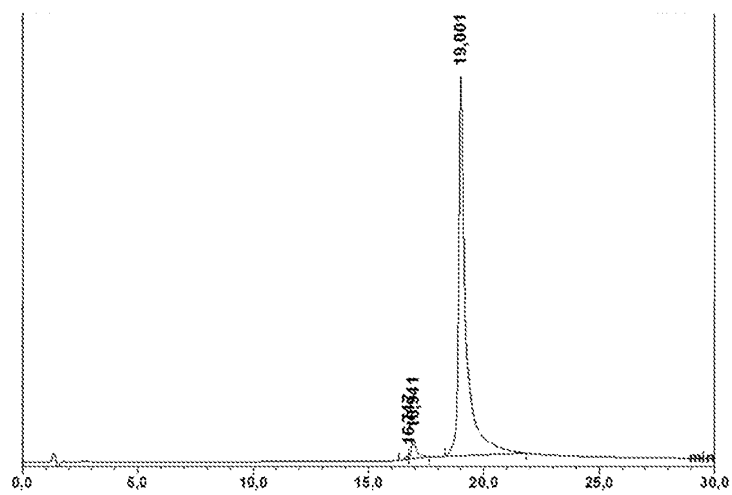


Figure 16

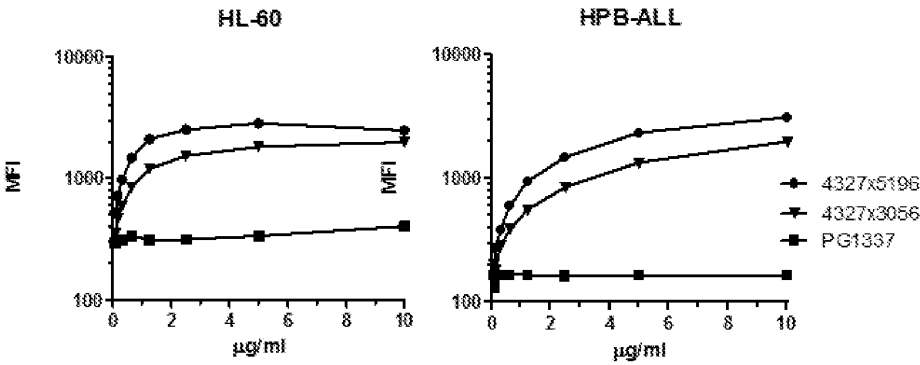


Figure 17

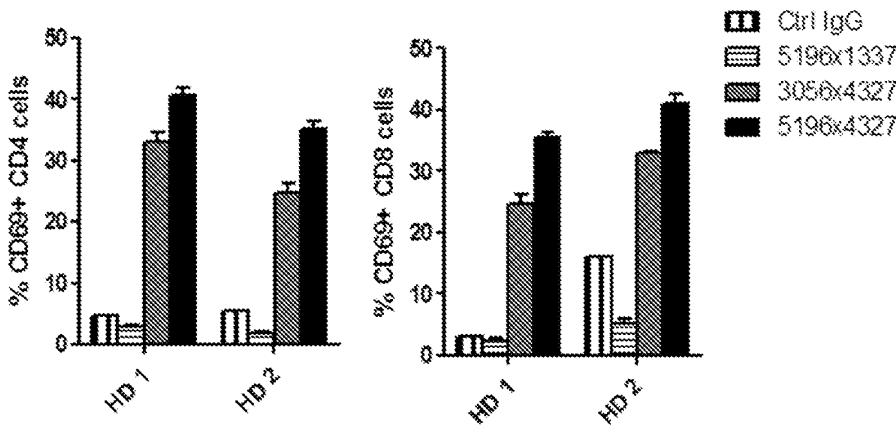


Figure 18

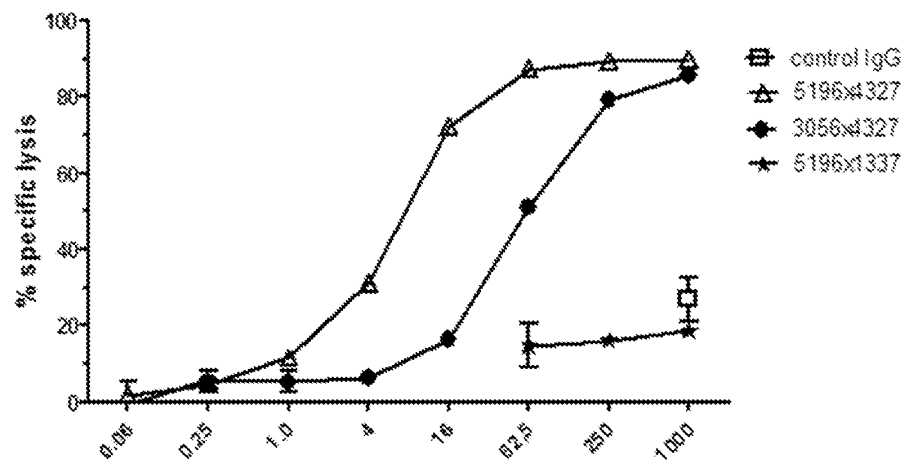


Figure 19

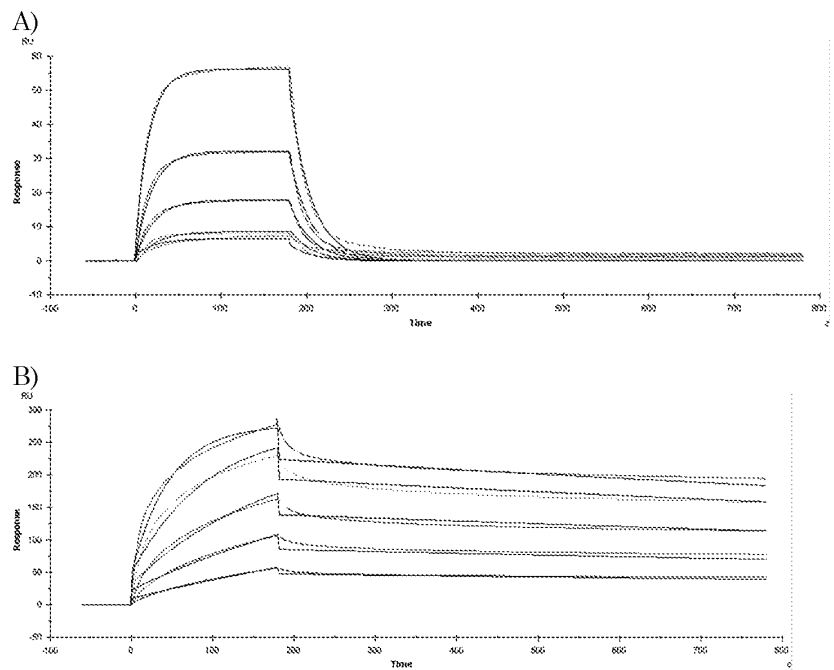


Figure 20

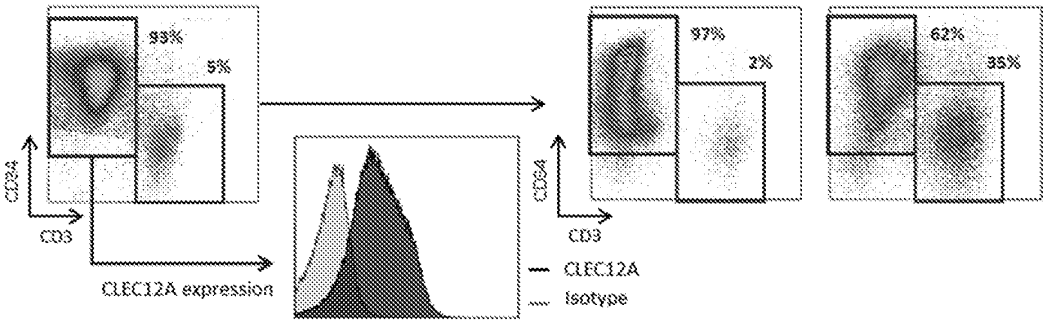
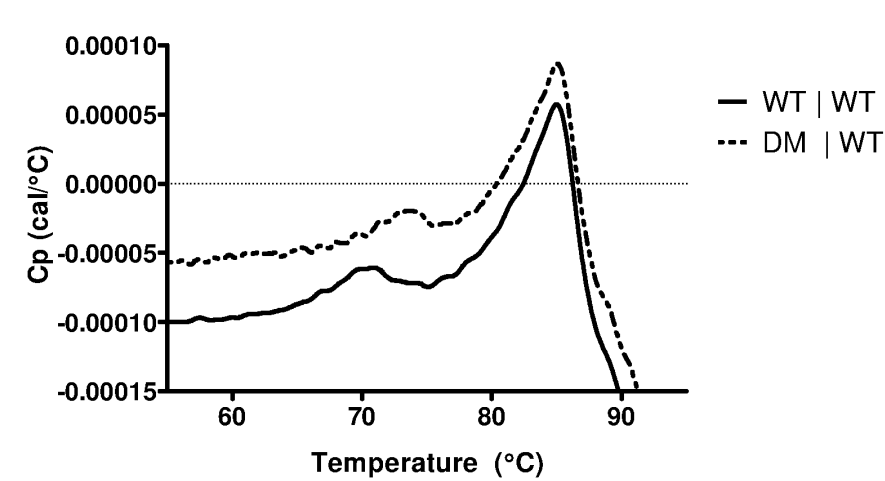


Figure 21



Sample	Tm1 (°C)	Tm2 (°C)
WT WT	70.9	85.0
DM WT	73.5	85.0

Figure 22

15C3 VH (MF3055_VH)

QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAAIWYNGRKQDYADSV
KGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGT LVTVSS

15C3 VL1 - IGKV3-11*

EIVLTQSPATLSLSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLLIYDASN RATGIPASFSG
SGSGTDFTLTISSLEPEDFAVYYCQQRSNWPWTFGQGTKVEIK

15C3 VL2 - IGKV1-13 (MF3055_VL)

AIQLTQSPSSLSASVGDRVITITCRASQGISSALAWYQQKPGKAPKLLIYDASSLES GVP SRFSG
SGSGTDFTLTISSLQPEDFATYYCQQFN SYPITFGQGTRLEIK

IGKV1-39 (MF3056_VL)

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVP SRFSG
SGSGTDFTLTISSLQPEDFATYYCQQSYSTPPTFGQGTKVEIK

Figure 23

Figure 23A

IGKV1-39A

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVP SRFSG
SGSGTDFTLTISSLQPEDFATYYCQQSYSTP

Figure 23B

IGKV1-39/jk1

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVP SRFSG
SGSGTDFTLTISSLQPEDFATYYCQQSYSTPPTFGQGTKVEIK

Figure 23C

IGKV1-39/jk5

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVP SRFSG
SGSGTDFTLTISSLQPEDFATYYCQQSYSTPPTFGQGTRLEIK

Figure 24

MF1337_VH

EVQLVETGAEVKKPGASVKVSKASDYIFTKYDINWVRQAPQG LEWMGWSANTGNTGYAQKFQGRVTM
TRDTSINTAYMELSSLTSGDTAVYFCARSSLFKTETAPYYHFALDVWGQGTITVTVSS

MF4327_VH

QVQLVQSGAEVKKPGASVKVSKASGYFTSYMHWVRQAPQG LEWMGIINPSGGSTSYAQKFQGRVTM
TRDTSTSTVYMESSLRSED TAVYYCAKGTGDFDYWGQGT LVTVSS

Figure 25

		1	50
MF5196_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF5603_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF5616_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF5626_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF5630_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF5648_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF5661_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
MF5694_VH	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
Consensus	(1)	QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA	
		51	100
MF5196_VH	(51)	IWYNARKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF5603_VH	(51)	IWYNARKQEYIDSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF5616_VH	(51)	IWYNARKQEYND SVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF5626_VH	(51)	IWYNARKQEYRDSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF5630_VH	(51)	IWYNARKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF5648_VH	(51)	IWYNARKQEYLD SVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF5661_VH	(51)	IWYNARKQEYSDSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
MF5694_VH	(51)	IWYNARKQEYSDSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
Consensus	(51)	IWYNARKQEYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT	
		101	118
MF5196_VH	(101)	GYNWFD PWGQGT LVT VSS	
MF5603_VH	(101)	GYNWFD PWGQGT LVT VSS	
MF5616_VH	(101)	GYNWFD PWGQGT LVT VSS	
MF5626_VH	(101)	GYNWFD PWGQGT LVT VSS	
MF5630_VH	(101)	GYNWYD PWGQGT LVT VSS	
MF5648_VH	(101)	GYNWFD PWGQGT LVT VSS	
MF5661_VH	(101)	GYNWFD PWGQGT LVT VSS	
MF5694_VH	(101)	GYNWFD PWGQGT LVT VSS	
Consensus	(101)	GYNWFD PWGQGT LVT VSS	
MF5196_VH QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQDYA			
DSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFDPWGQGT LVT VSS			
MF5603_VH			
QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYIDSVKGRFTI			
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFDPWGQGT LVT VSS			
MF5616_VH			
QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYND SVKGRFTI			
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFDPWGQGT LVT VSS			
MF5626_VH			
QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYRDSVKGRFTI			
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFDPWGQGT LVT VSS			
MF5630_VH			
QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQDYADSVKGRFTI			
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWYD PWGQGT LVT VSS			
MF5648_VH			
QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYLD SVKGRFTI			
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFDPWGQGT LVT VSS			
MF5661_VH			

QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAQIWIYNARKQEYSDSVKGRFTI
SRDNSKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

MF5694_VH

QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAIIWIYNARKQEYSDSVKGRFTI
SRDNSKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

Figure 26

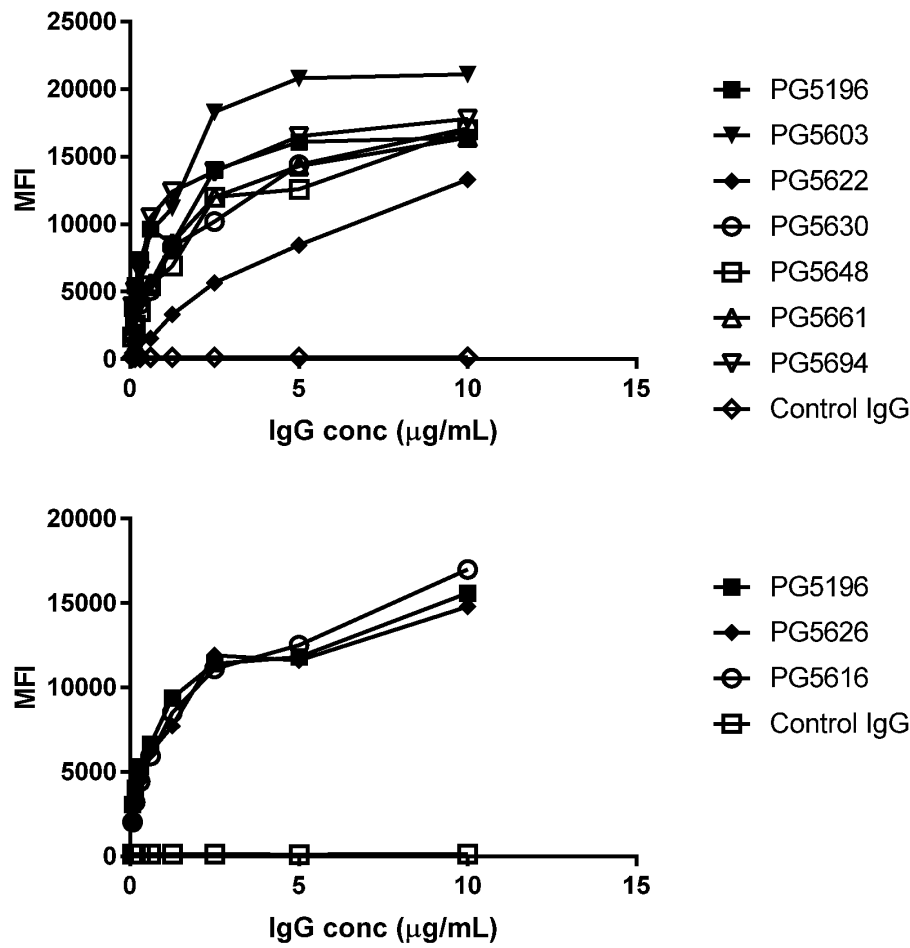


Figure 27

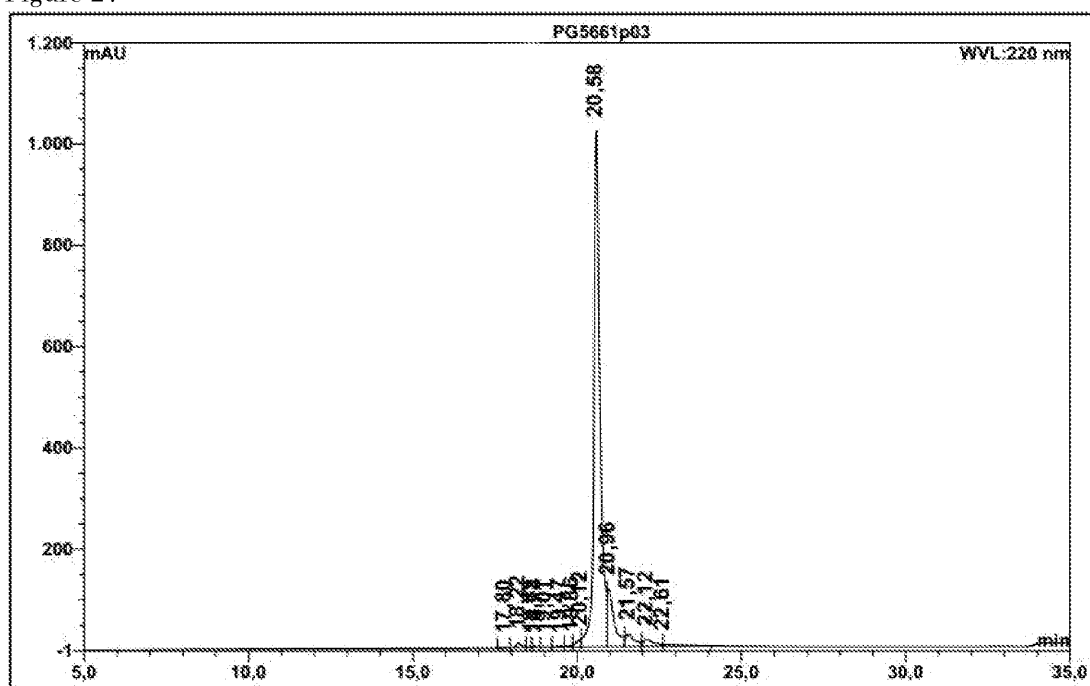


Figure 28

		1		50
MF5196	(1)	QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA		
MF5351	(1)	QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAM		
MF5354	(1)	QVQLVQSGGGVVQPGRSLRLSCAASGFTFSGYGMHWVRQAPGKGLEWVAQ		
MF5356	(1)	QVQLVESGGGVVQPGRSLRLSCAASGFTFSKYGMHWVRQAPGKGLEWVAQ		
Consensus	(1)	QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAQ		
		51		100
MF5196	(51)	IWYNARKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
MF5351	(51)	IWYDGKNTYYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
MF5354	(51)	IYYDGSRTYYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
MF5356	(51)	IWHDGRKTYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
Consensus	(51)	IWYDGRKTYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT		
		101		118
MF5196	(101)	GYNWFDPWGQGTLVTVSS		
MF5351	(101)	GYNWFDPWGQGTLVTVSS		
MF5354	(101)	GYNWFDPWGQGTLVTVSS		
MF5356	(101)	GYNWFDPWGQGTLVTVSS		
Consensus	(101)	GYNWFDPWGQGTLVTVSS		

MF5351_VH

QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAMIWYDGKNTYYADSVKGRFTI
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

MF5354_VH

QVQLVQSGGGVVQPGRSLRLSCAASGFTFSGYGMHWVRQAPGKGLEWVAQIYYDGSRTYYADSVKGRFTI
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

MF5356_VH

QVQLVESGGGVVQPGRSLRLSCAASGFTFSKYGMHWVRQAPGKGLEWVAQIWHHDGRKTYADSVKGRFTI
SRDN SKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

Figure 29

