

Figure 1

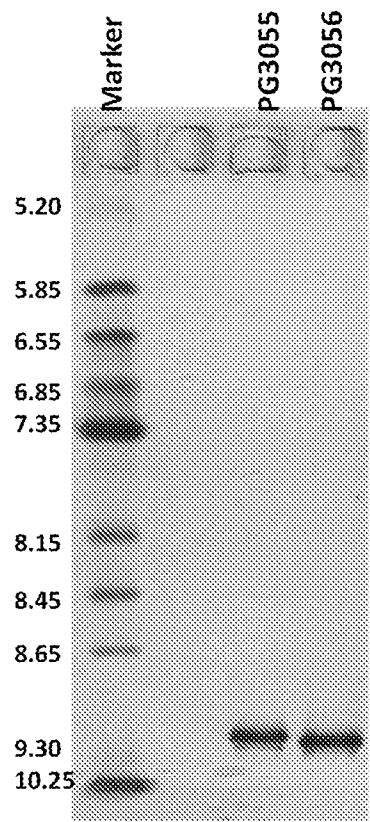


Figure 2

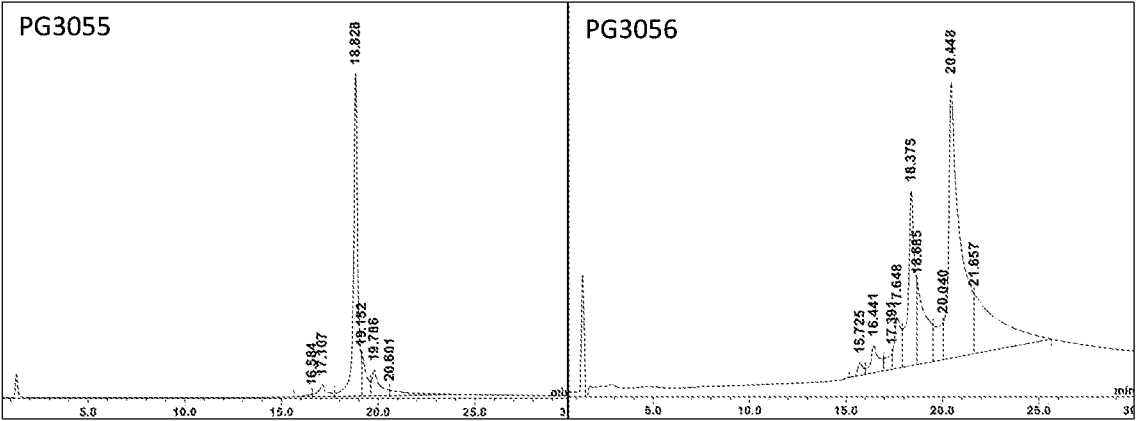


Figure 3

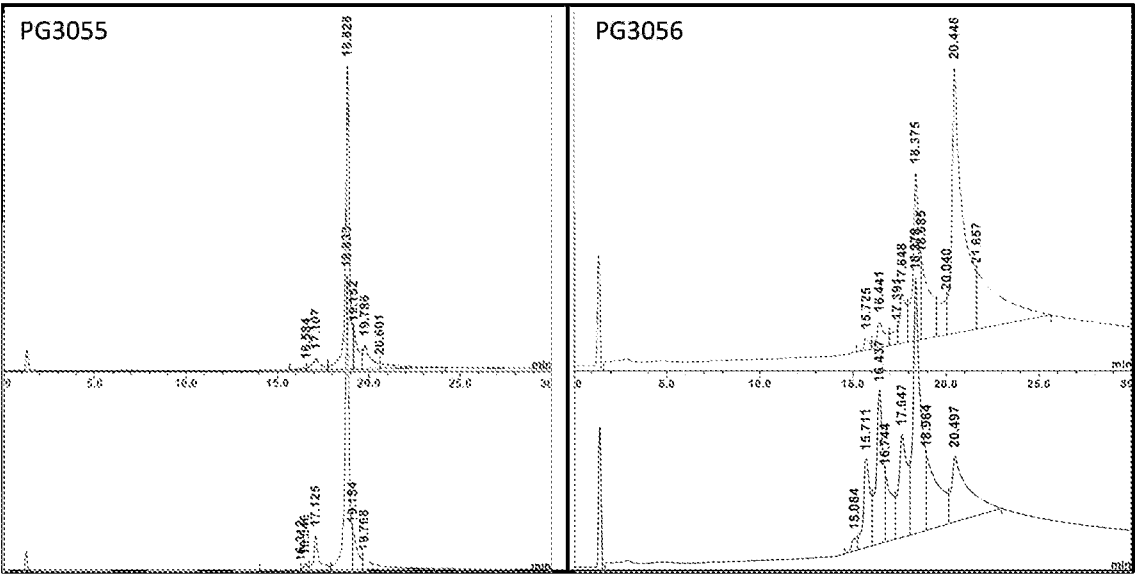


Figure 4

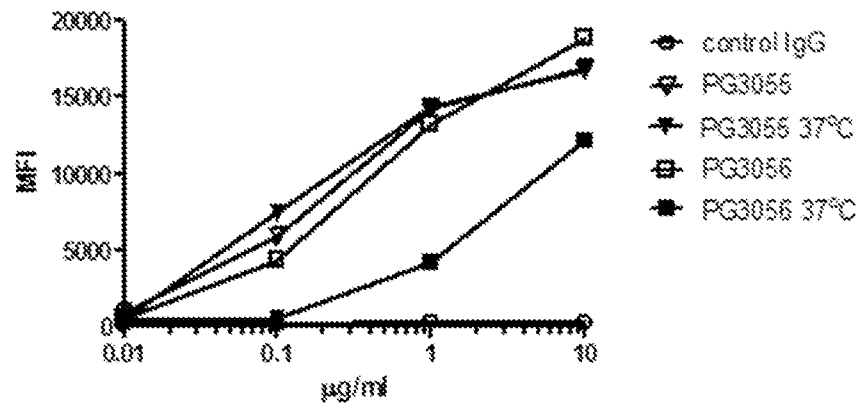


Figure 5

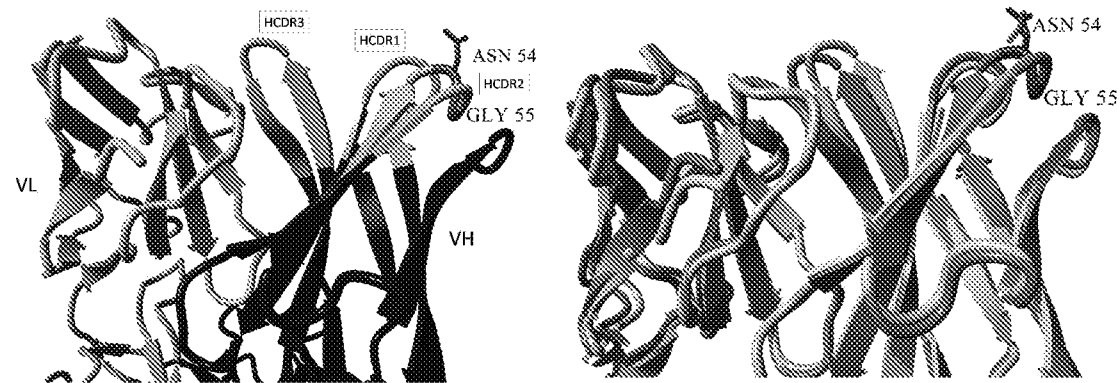


Figure 6

|           |       |                                                              |  |     |
|-----------|-------|--------------------------------------------------------------|--|-----|
|           |       | 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)  | IWY <u>NG</u> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| Consensus | (51)  | IWY G YADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYC R               |  |     |
|           |       | 101                                                          |  | 115 |
| 3-33_VH   | (99)  | -----                                                        |  |     |
| MF3056_VH | (101) | GYNWFDPWGQGTLVT                                              |  |     |
| 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)  | IWY <u>S</u> GRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF3873_VH | (51)  | IWY <u>Q</u> GRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF3905_VH | (51)  | IWY <u>G</u> GRKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
|           |       | 101                                                          |  | 118 |
| MF3056_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF3872_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF3873_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF3905_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |

Figure 8

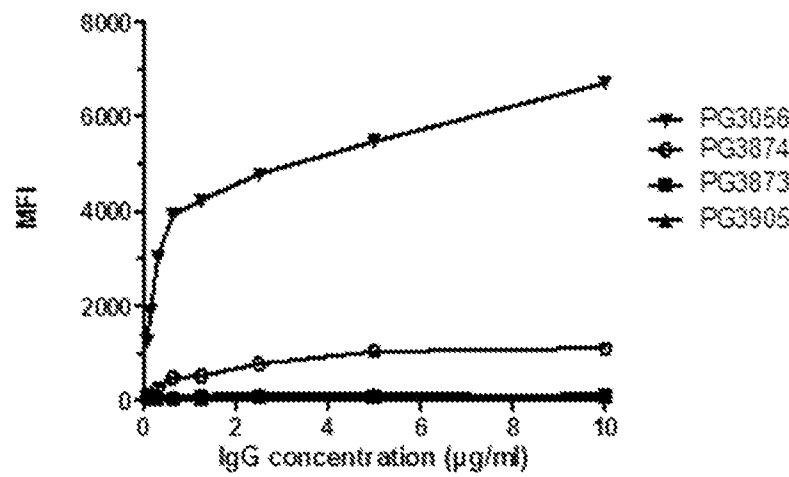


Figure 9

|           |       |                                                     |     |
|-----------|-------|-----------------------------------------------------|-----|
|           |       | 1                                                   | 50  |
| MF3056_VH | (1)   | QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF3874_VH | (1)   | QVQLVESGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF3878_VH | (1)   | QVQLVQSGGGVVPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF3883_VH | (1)   | QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAV   |     |
| MF3886_VH | (1)   | QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF3891_VH | (1)   | QVQLVESGGGVVPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| Consensus | (1)   | QVQLVQSGGGVVPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
|           |       | 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

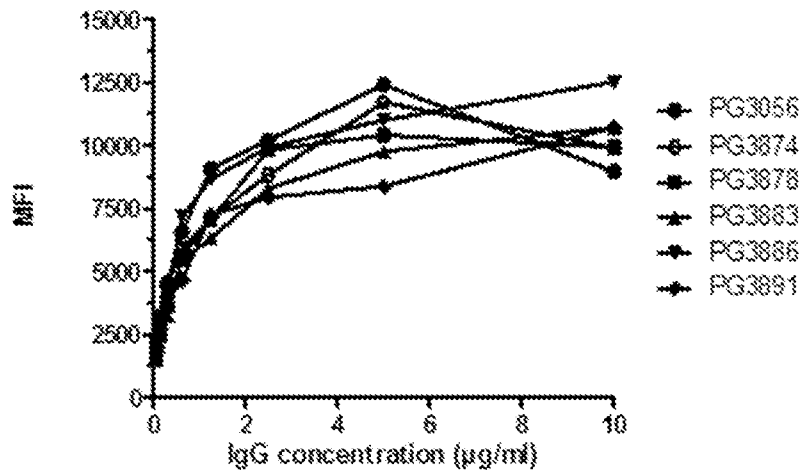


Figure 11

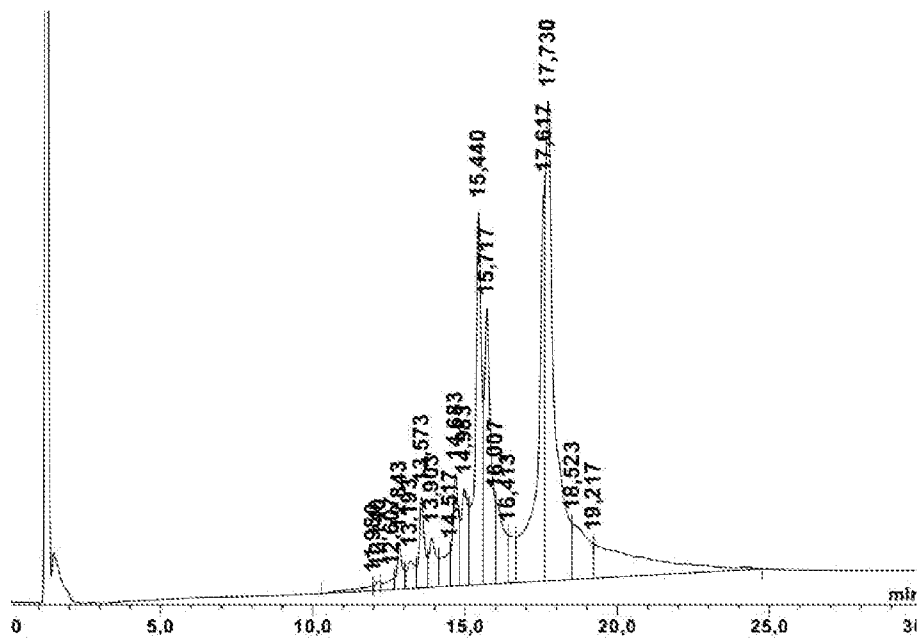


Figure 12

|           |       |                                                              |  |     |
|-----------|-------|--------------------------------------------------------------|--|-----|
|           |       | 1                                                            |  | 50  |
| MF3056_VH | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
| MF5192_VH | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
| MF5193_VH | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
| MF5194_VH | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
| MF5195_VH | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
| MF5196_VH | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
| MF5197_VH | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
| Consensus | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA           |  |     |
|           |       | 51                                                           |  | 100 |
| MF3056_VH | (51)  | IWY <b>NG</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF5192_VH | (51)  | IWY <b>HG</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF5193_VH | (51)  | IWY <b>HA</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF5194_VH | (51)  | IWY <b>HT</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF5195_VH | (51)  | IWY <b>HN</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF5196_VH | (51)  | IWY <b>NA</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| MF5197_VH | (51)  | IWY <b>NT</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
| Consensus | (51)  | IWY <b>HA</b> RKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT |  |     |
|           |       | 101                                                          |  | 118 |
| MF3056_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF5192_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF5193_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF5194_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF5195_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF5196_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| MF5197_VH | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |
| Consensus | (101) | GYNWFDPWGQGTLVTVSS                                           |  |     |

Figure 13

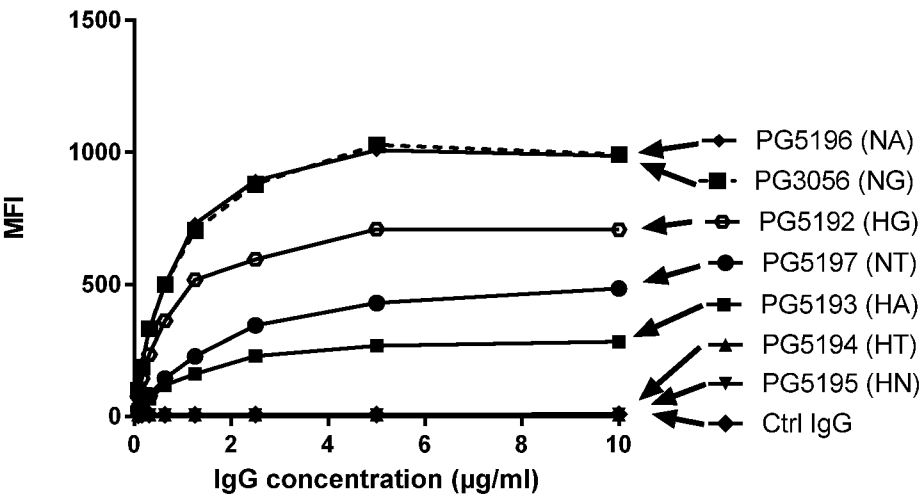


Figure 14

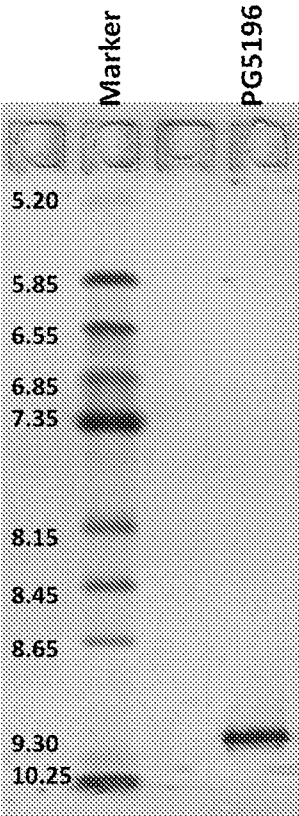


Figure 15

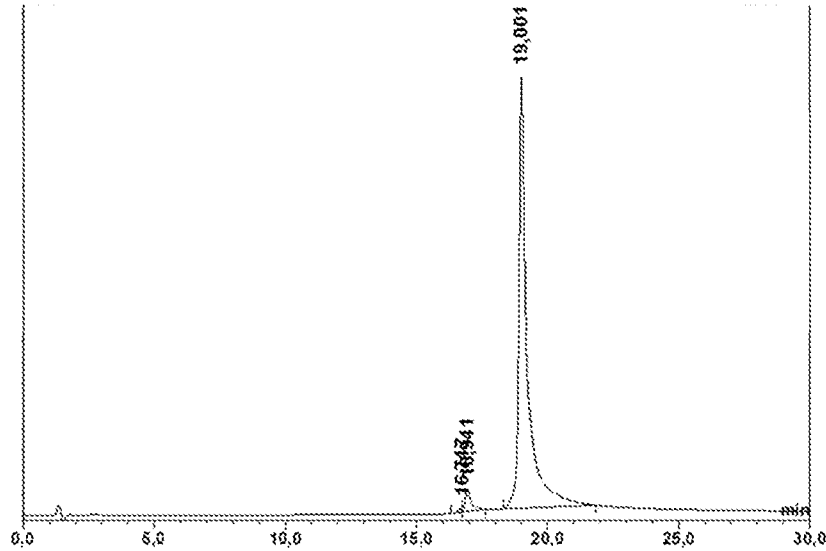


Figure 16

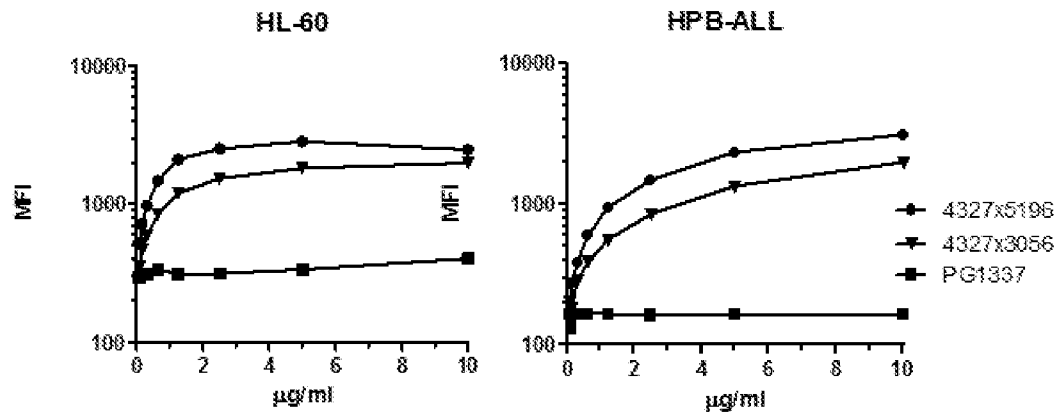


Figure 17

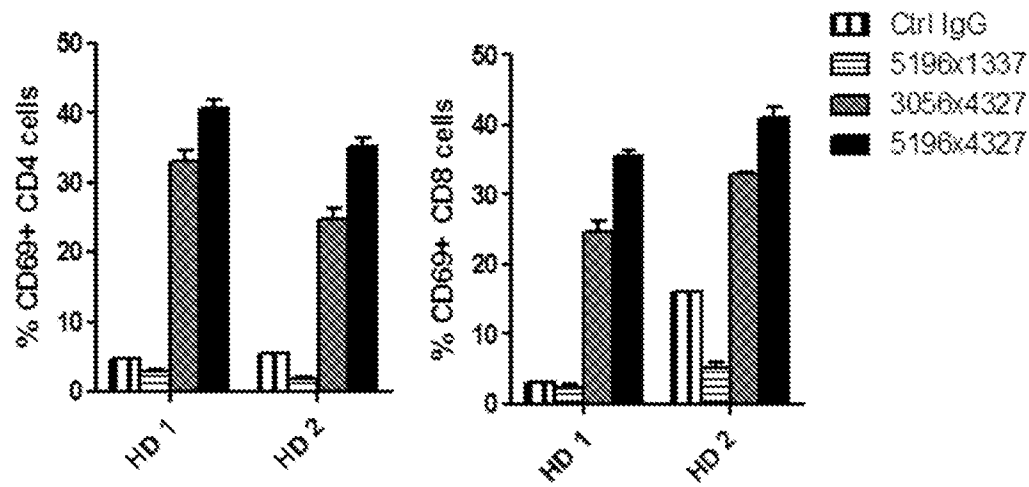


Figure 18

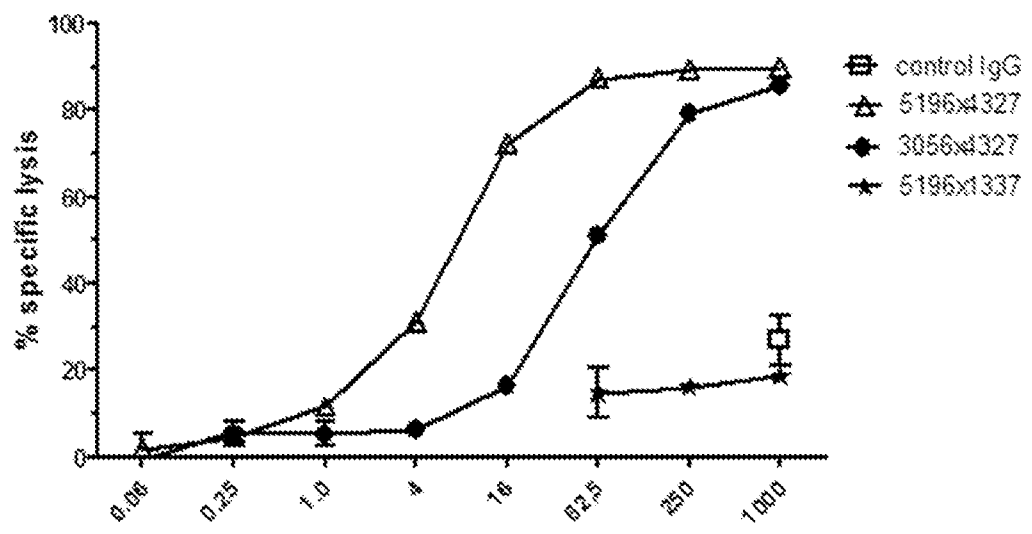


Figure 19

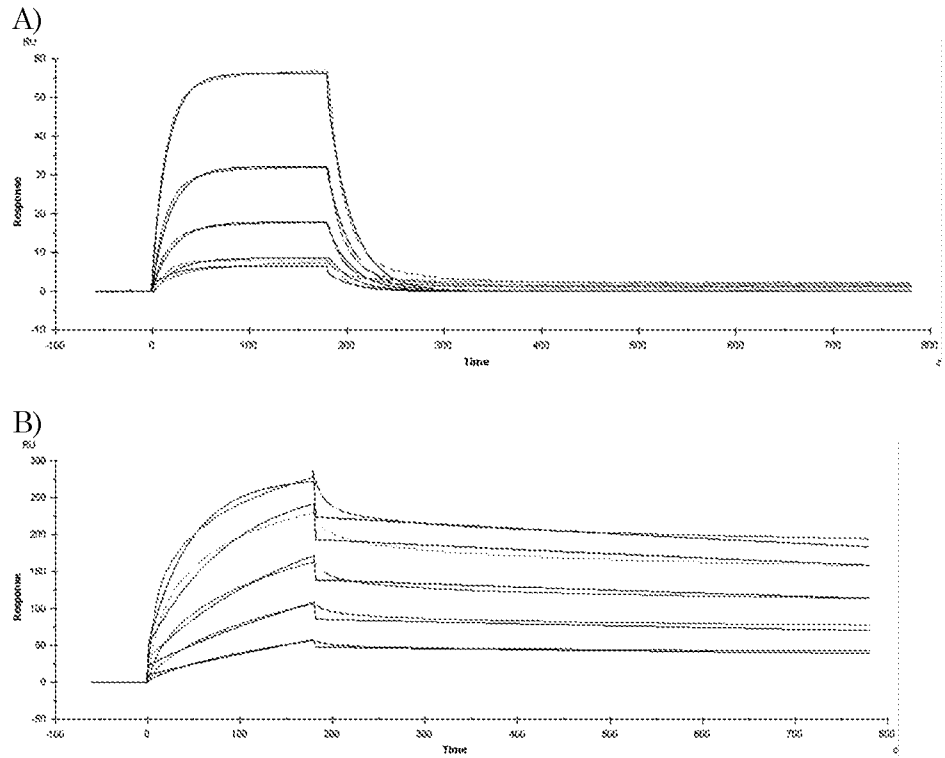


Figure 20

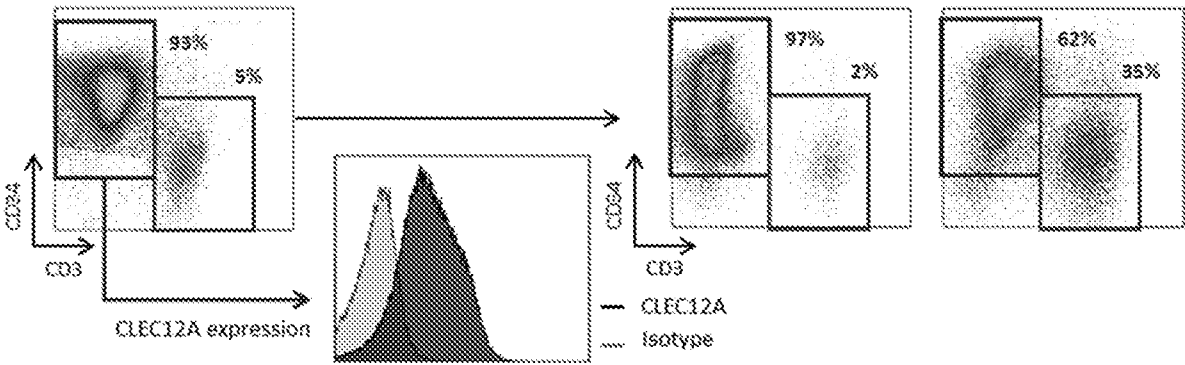
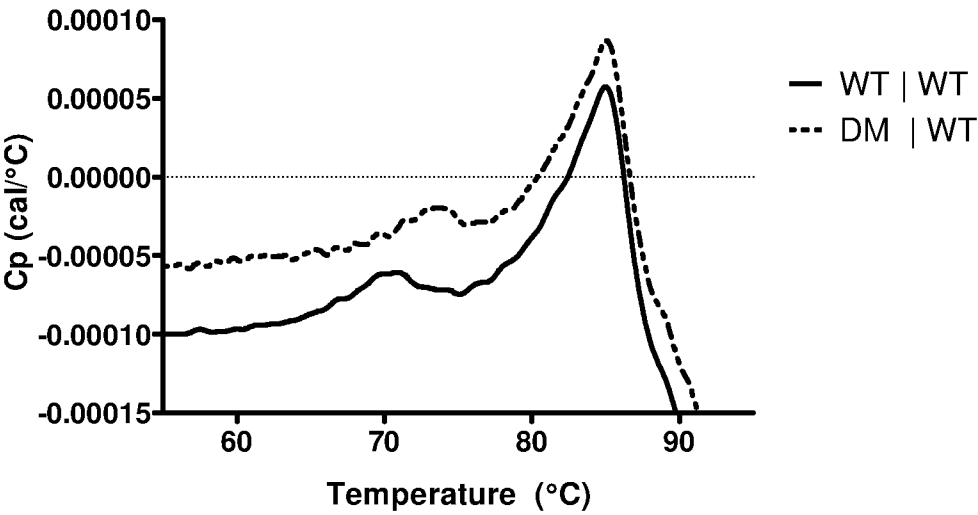


Figure 21



| 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\*

EIVLTQSPATLSLSPGERATLSCRASQSVSSYLAWYQQKPGQAPRLLIYDASNRATGIPASFSG  
SGSGTDFTLTISSLPEPDAFVYYCQQRSNWPWTFGQGTKVEIK

15C3 VL2 - IGKV1-13 (MF3055\_VL)

AIQLTQSPSSLSASVGDRVITITCRASQGISSALAWYQQKPGKAPKLLIYDASSLESGVPSRFSG  
SGSGTDFTLTISSLQPEDFATYYCQQFNSYPITFGQGT RLEIK

IGKV1-39 (MF3056\_VL)

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVPSRFSG  
SGSGTDFTLTISSLQPEDFATYYCQQSYSTPPTFGQGTKVEIK

## Figure 23

Figure 23A

IGKV1-39A

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVPSRFSG  
SGSGTDFTLTISSLQPEDFATYYCQQSYSTP

Figure 23B

IGKV1-39/jk1

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVPSRFSG  
SGSGTDFTLTISSLQPEDFATYYCQQSYSTPPTFGQGTKVEIK

Figure 23C

IGKV1-39/jk5

DIQMTQSPSSLSASVGDRVITITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVPSRFSG  
SGSGTDFTLTISSLQPEDFATYYCQQSYSTPPTFGQGT RLEIK

## Figure 24

MF1337\_VH

EVQLVETGAEVKKPGASVKVSKASDYIFTKYDINWVRQAPGQGLEWMGWMSANTGNTGYAQKFQGRVTM  
TRDTSINTAYMELSSLTSGDTAVYFCARSSLFKTETAPYYHFDLVWGQGT TTVTVSS

MF4327\_VH

QVQLVQSGAEVKKPGASVKVSKASGYTFTSYMHWVRQAPGQGLEWMGIINPSGGSTSYAQKFQGRVTM  
TRDTSTSTVYMESSLRSED TAVYYCAKGT TGDWFDYWGQGT LVTVSS

Figure 25

|                                                                          |       |                                                      |     |
|--------------------------------------------------------------------------|-------|------------------------------------------------------|-----|
|                                                                          |       | 1                                                    | 50  |
| MF5196_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF5603_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF5616_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF5626_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF5630_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF5648_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF5661_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| MF5694_VH                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
| Consensus                                                                | (1)   | QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAA   |     |
|                                                                          |       | 51                                                   | 100 |
| MF5196_VH                                                                | (51)  | IWYNARKQDYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT  |     |
| MF5603_VH                                                                | (51)  | IWYNARKQEYIDSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT  |     |
| MF5616_VH                                                                | (51)  | IWYNARKQEYNDSVKGRFTISRDN 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 PWGQGTLVTVSS                                  |     |
| MF5603_VH                                                                | (101) | GYNWFD PWGQGTLVTVSS                                  |     |
| MF5616_VH                                                                | (101) | GYNWFD PWGQGTLVTVSS                                  |     |
| MF5626_VH                                                                | (101) | GYNWFD PWGQGTLVTVSS                                  |     |
| MF5630_VH                                                                | (101) | GYNWYD PWGQGTLVTVSS                                  |     |
| MF5648_VH                                                                | (101) | GYNWFD PWGQGTLVTVSS                                  |     |
| MF5661_VH                                                                | (101) | GYNWFD PWGQGTLVTVSS                                  |     |
| MF5694_VH                                                                | (101) | GYNWFD PWGQGTLVTVSS                                  |     |
| Consensus                                                                | (101) | GYNWFD PWGQGTLVTVSS                                  |     |
| MF5196_VH QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQDYA |       |                                                      |     |
| DSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFD PWGQGTLVTVSS             |       |                                                      |     |
| MF5603_VH                                                                |       |                                                      |     |
| QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYIDSVKGRFTI  |       |                                                      |     |
| SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFD PWGQGTLVTVSS                      |       |                                                      |     |
| MF5616_VH                                                                |       |                                                      |     |
| QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYNDSVKGRFTI  |       |                                                      |     |
| SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFD PWGQGTLVTVSS                      |       |                                                      |     |
| MF5626_VH                                                                |       |                                                      |     |
| QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYRDSVKGRFTI  |       |                                                      |     |
| SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFD PWGQGTLVTVSS                      |       |                                                      |     |
| MF5630_VH                                                                |       |                                                      |     |
| QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQDYADSVKGRFTI  |       |                                                      |     |
| SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWYD PWGQGTLVTVSS                      |       |                                                      |     |
| MF5648_VH                                                                |       |                                                      |     |
| QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVA AIWYNARKQEYLD SVKGRFTI |       |                                                      |     |
| SRDN SKNTLYLQMNSLRAEDTAVYYCTRGT GYNWFD PWGQGTLVTVSS                      |       |                                                      |     |
| MF5661_VH                                                                |       |                                                      |     |

QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAQIWIYNARKQEYSDSVKGRFTI  
SRDNSKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

MF5694\_VH

QVQLVQSGGGVVQPGRSLRLSCVASGFTFSSYGMHWVRQAPGKGLEWVAIWIYNARKQEYSDSVKGRFTI  
SRDNSKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

Figure 26

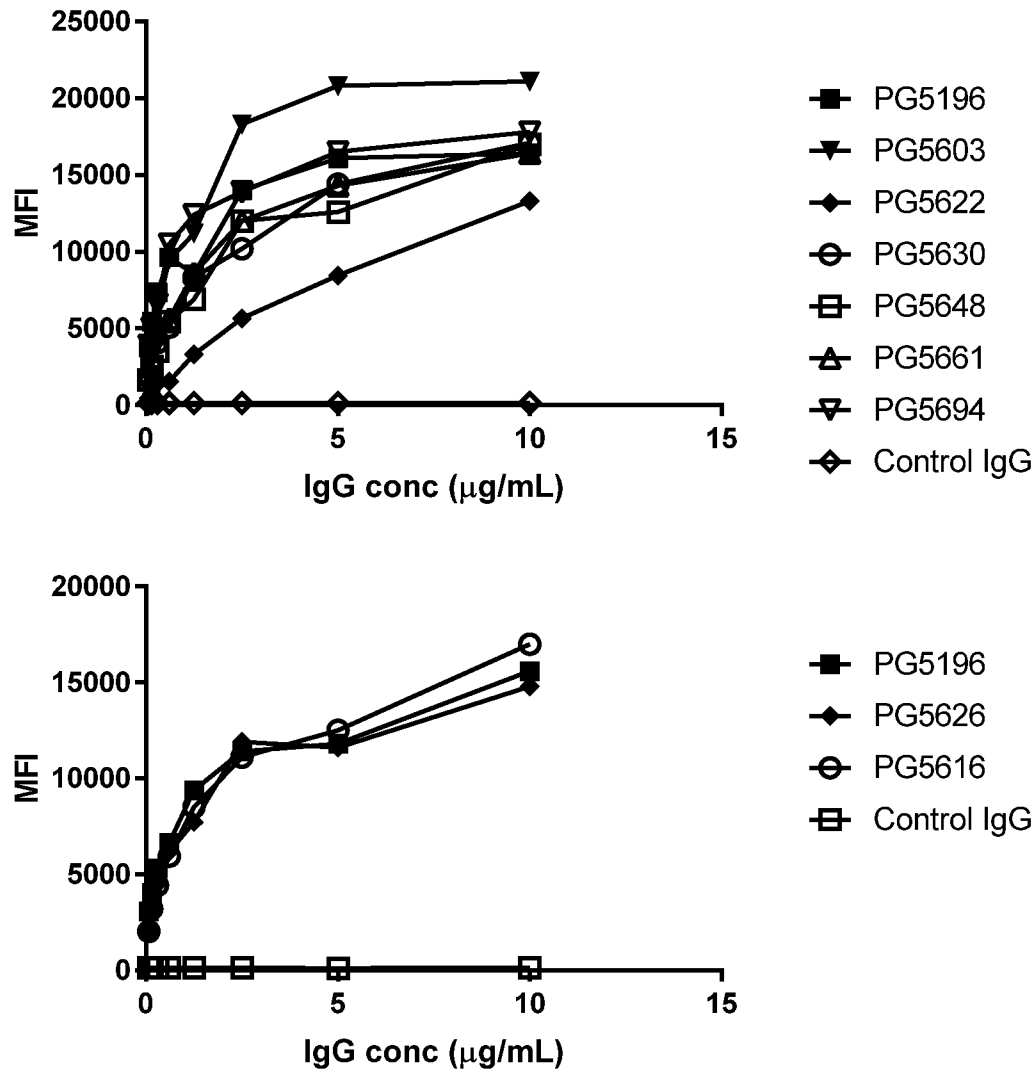


Figure 27

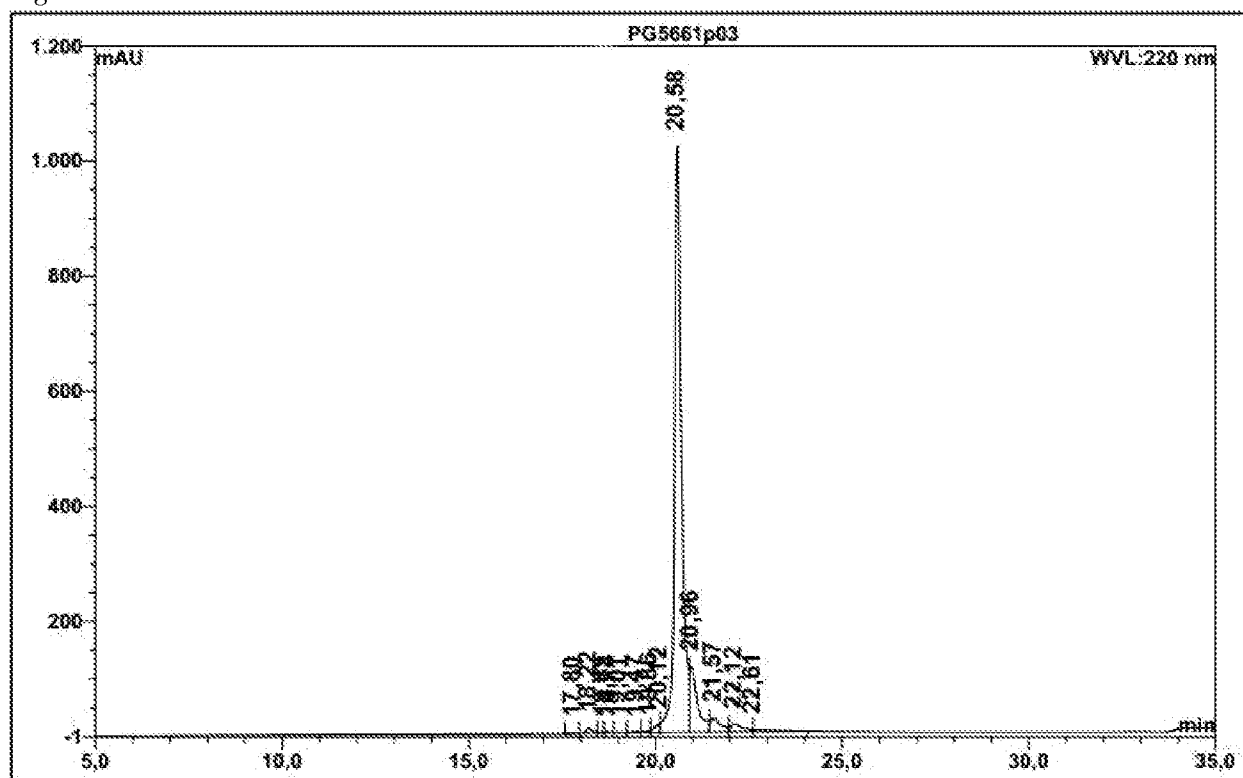


Figure 28

|           |       |                                                     |  |     |
|-----------|-------|-----------------------------------------------------|--|-----|
|           |       | 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

QVQLVQSGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAMIWYDGKNTYYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

MF5354\_VH

QVQLVQSGGGVVQPGRSLRLSCAASGFTFSGYGMHWVRQAPGKGLEWVAQIYYDGSRTYYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

MF5356\_VH

QVQLVESGGGVVQPGRSLRLSCAASGFTFSKYGMHWVRQAPGKGLEWVAQIWHHDGRKTYADSVKGRFTISRDN SKNTLYLQMNSLRAEDTAVYYCTRGTGYNWFDPWGQGTLVTVSS

Figure 29

