



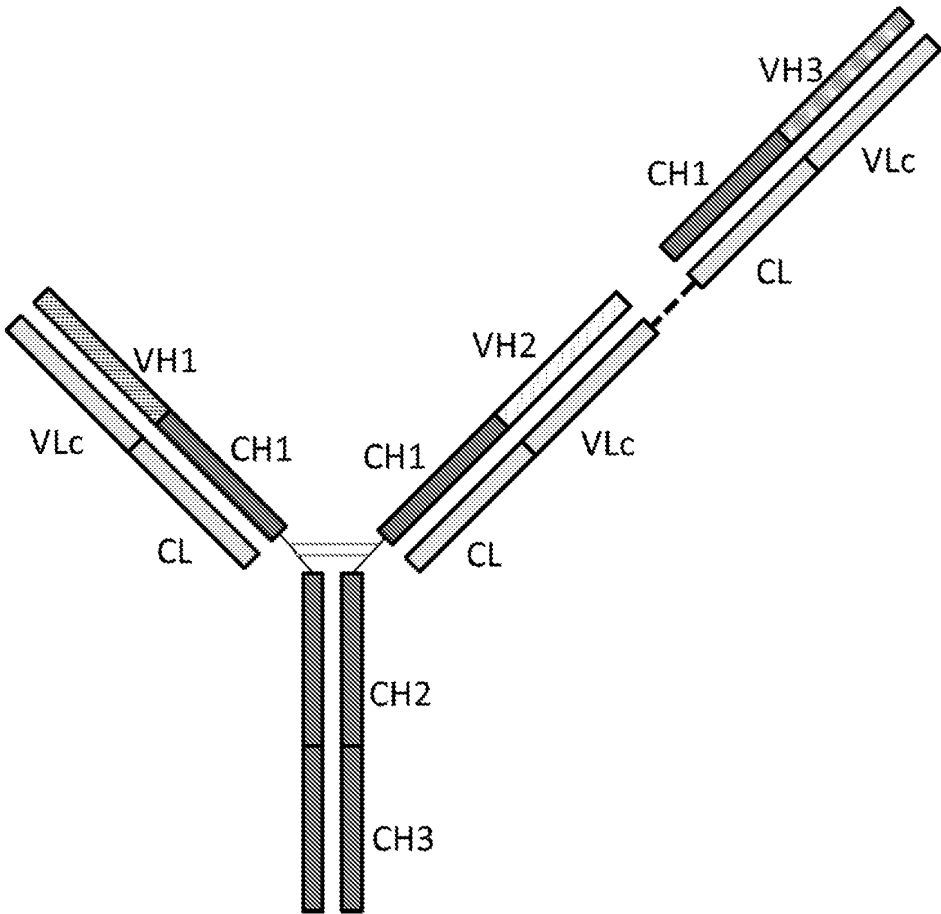


Fig. 1b

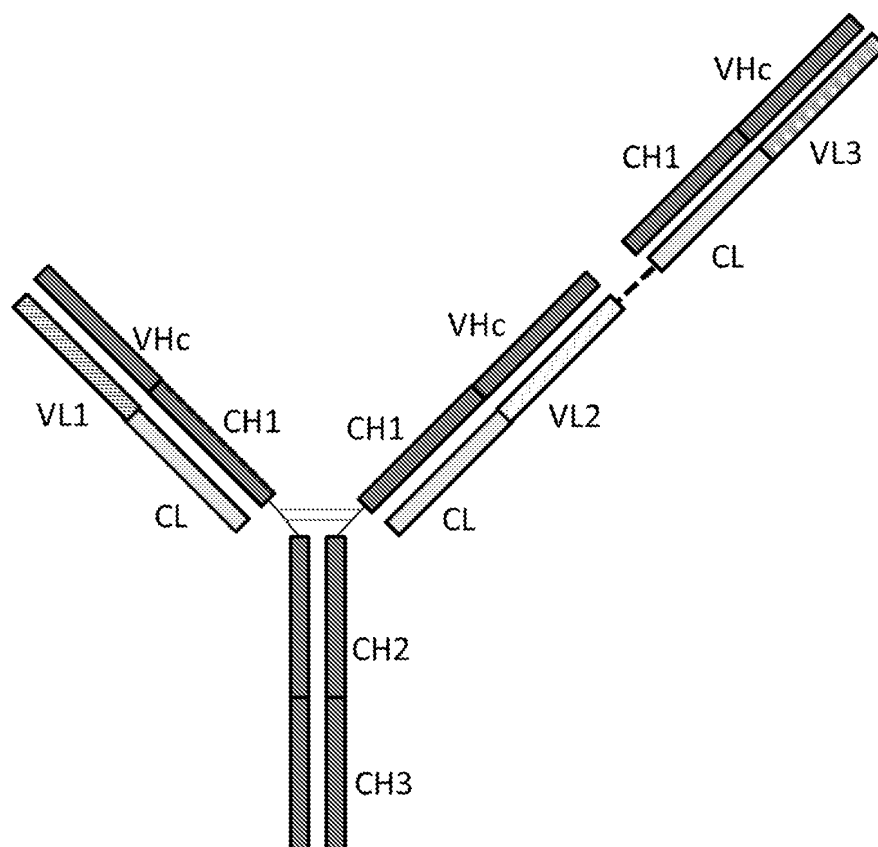


Fig. 1c

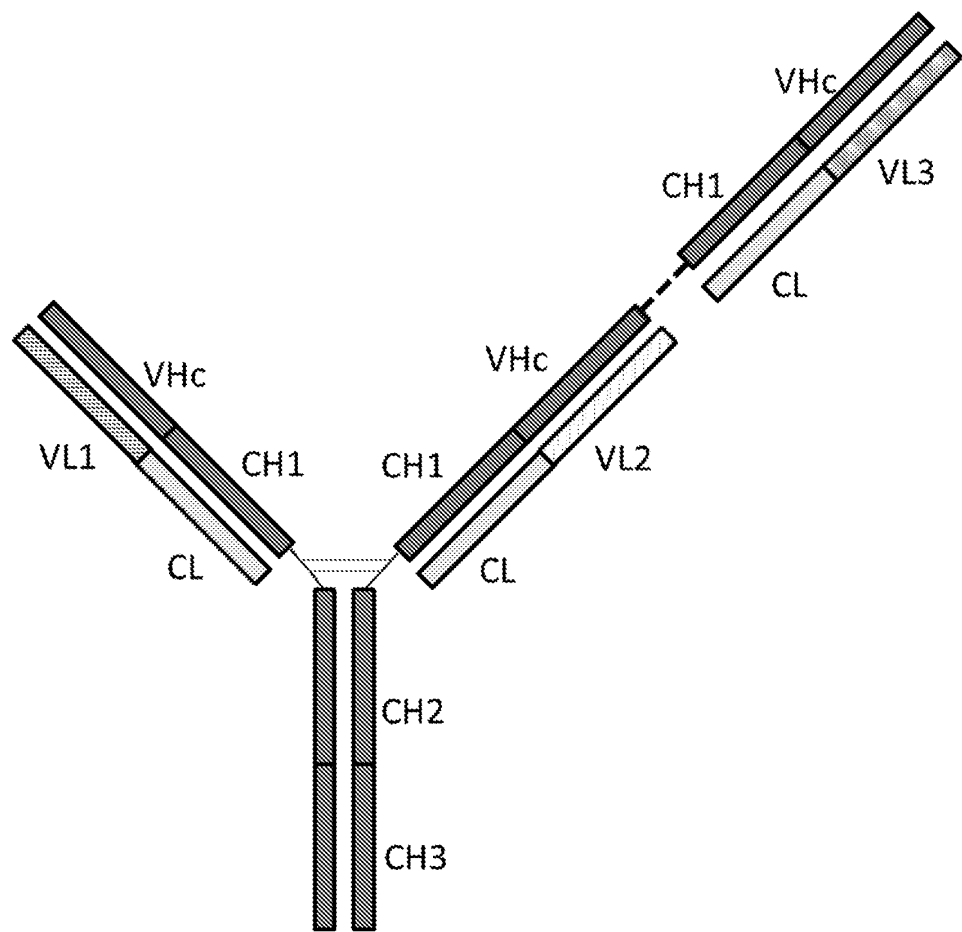


Fig. 1d

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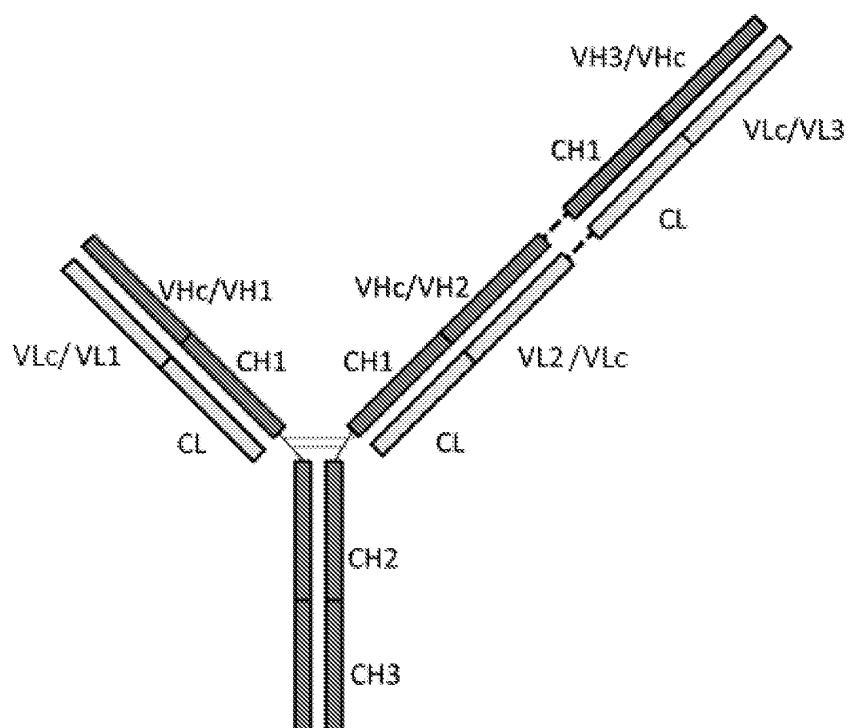


Fig. 1e

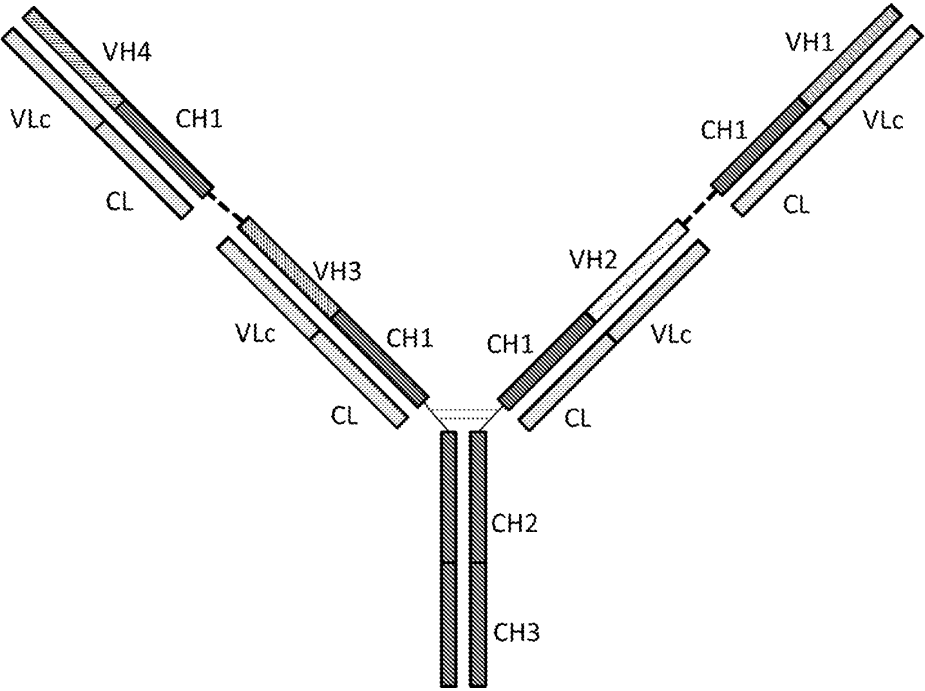


Fig. 1f

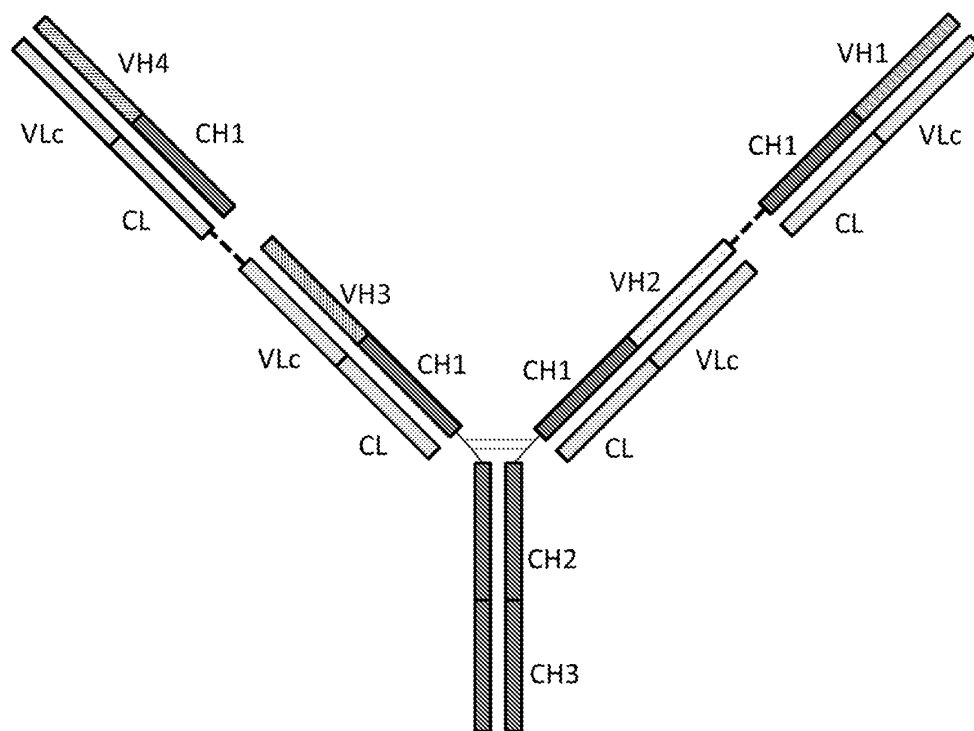


Fig. 1g

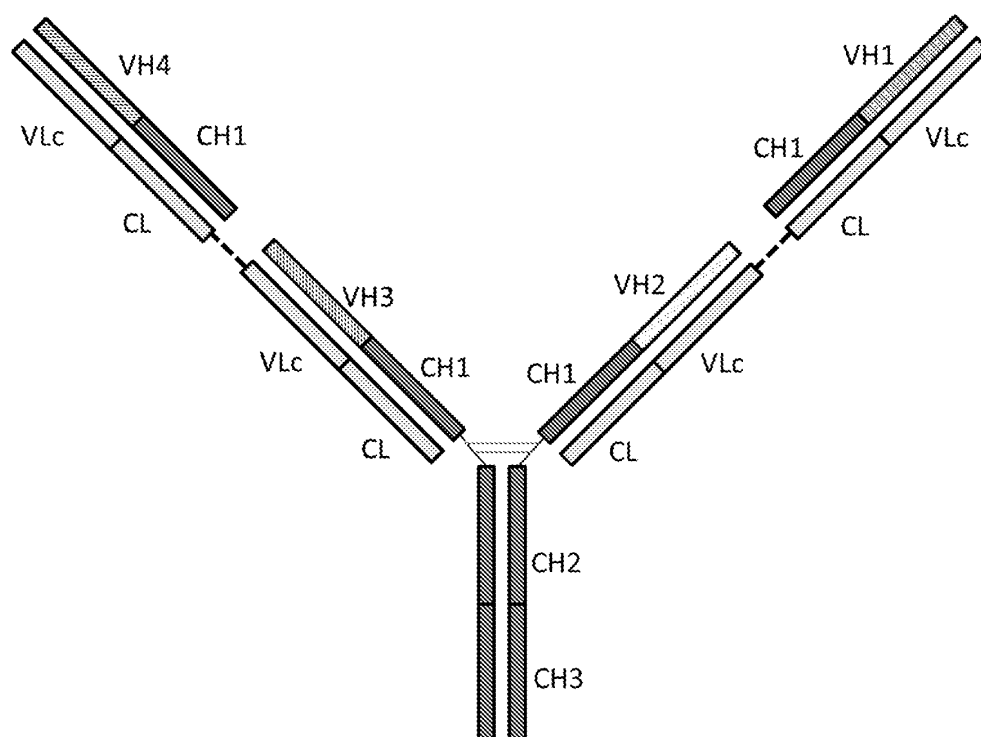


Fig. 1h

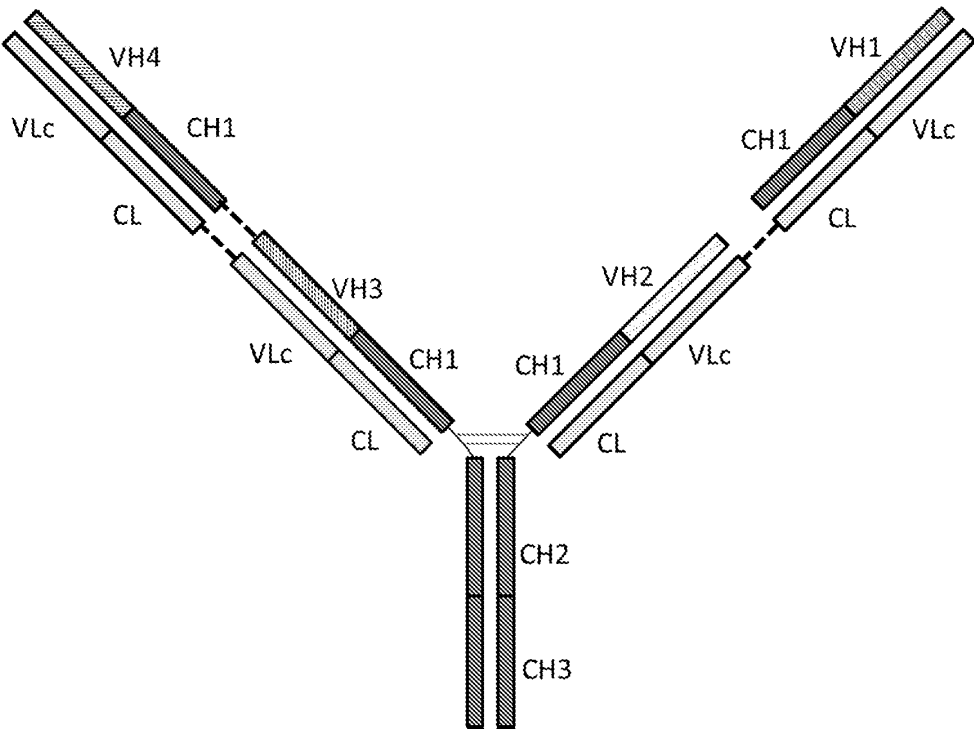


Fig. 1i

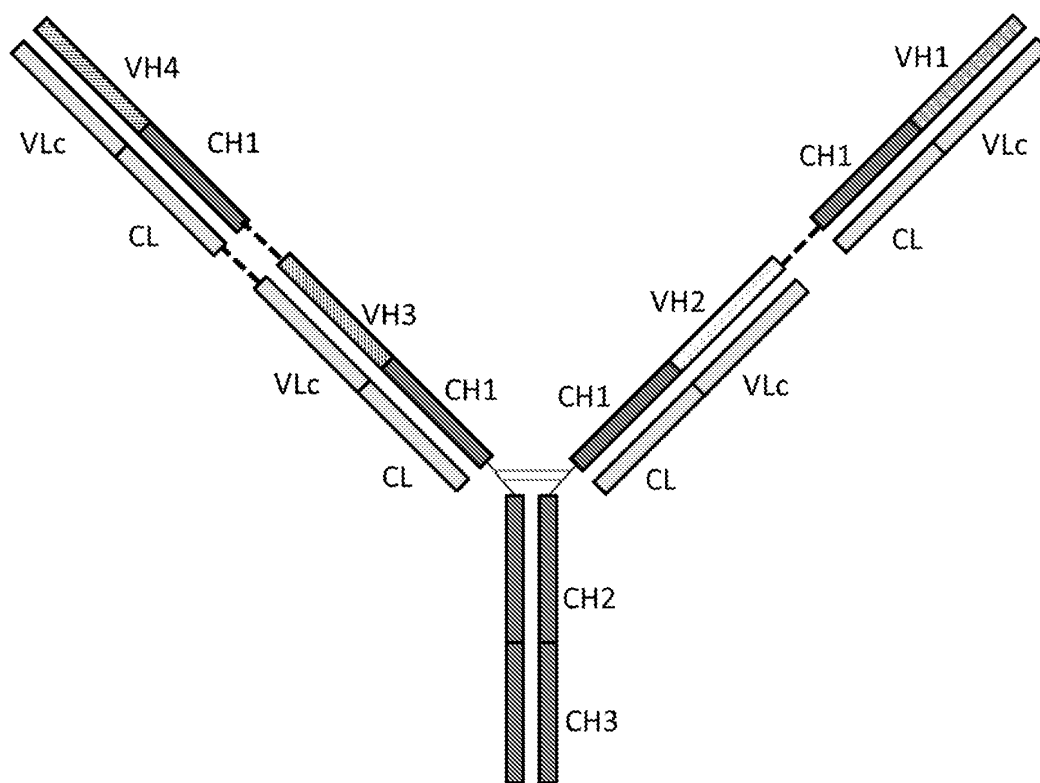


Fig. 1j

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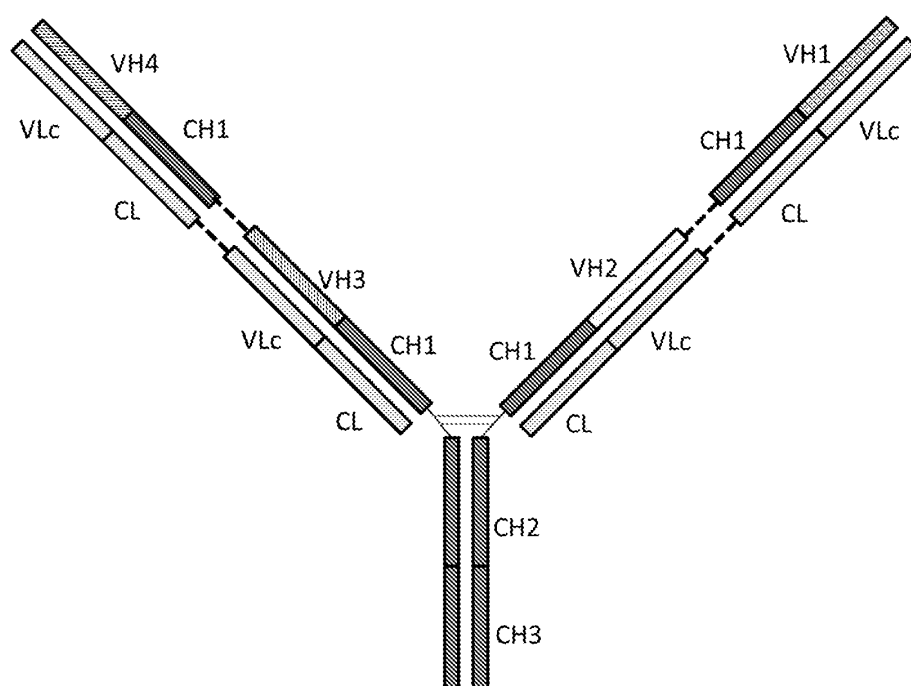


Fig. 1k

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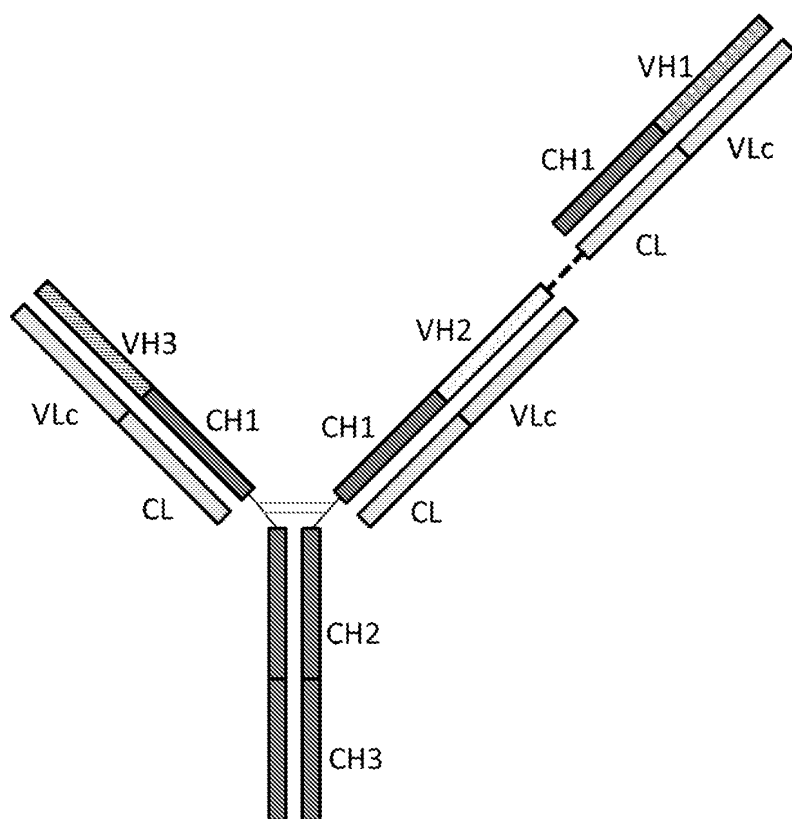


Fig. 11

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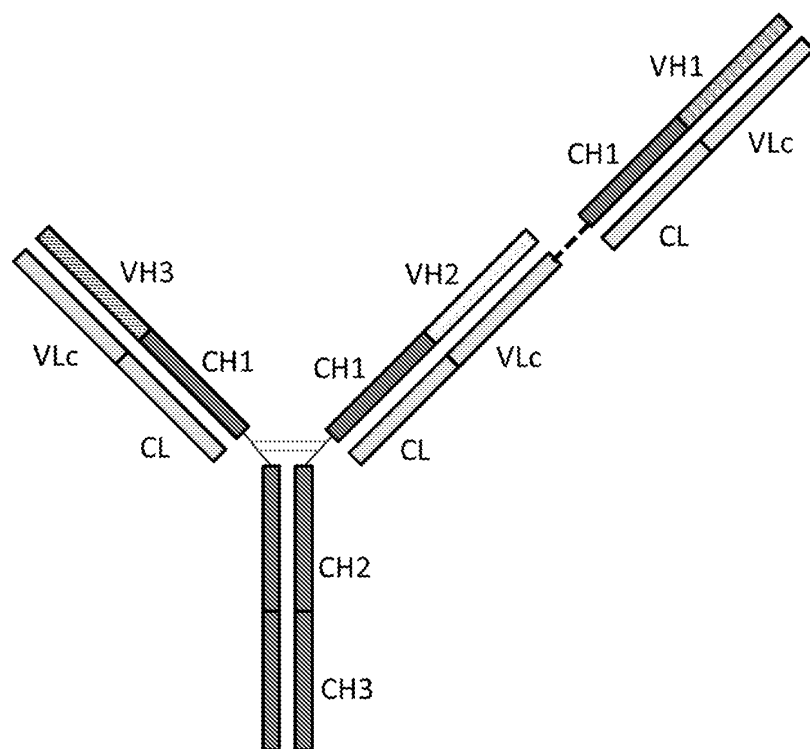


Fig. 1m



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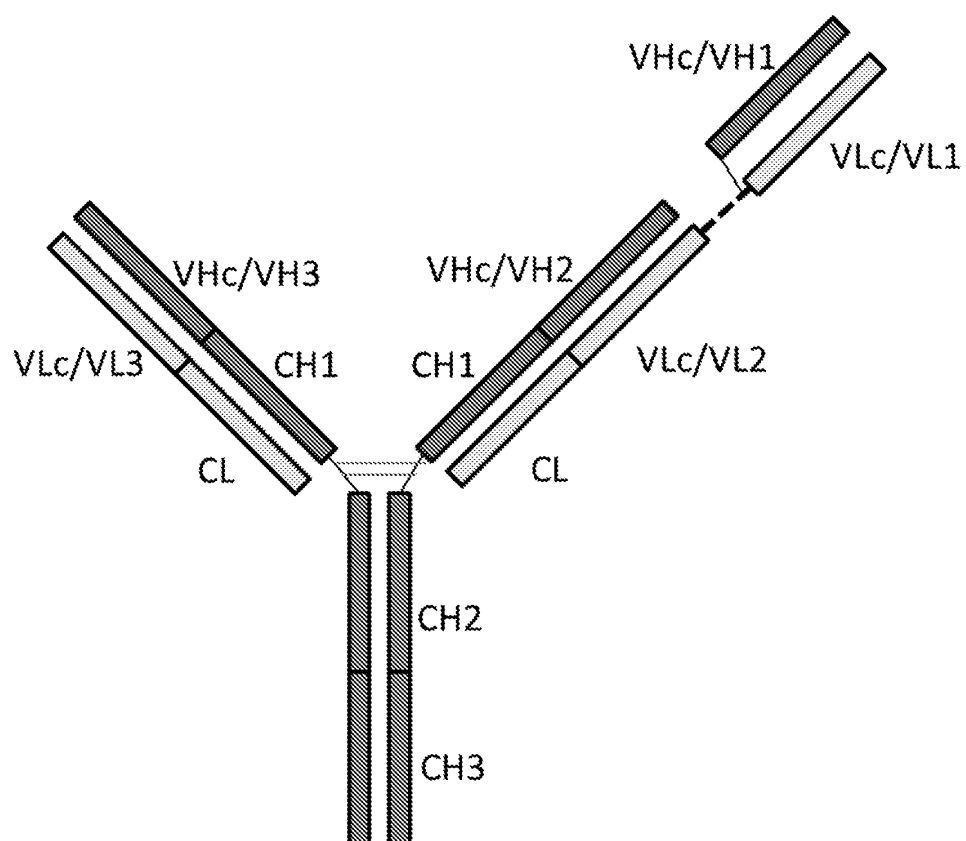


Fig. 1o

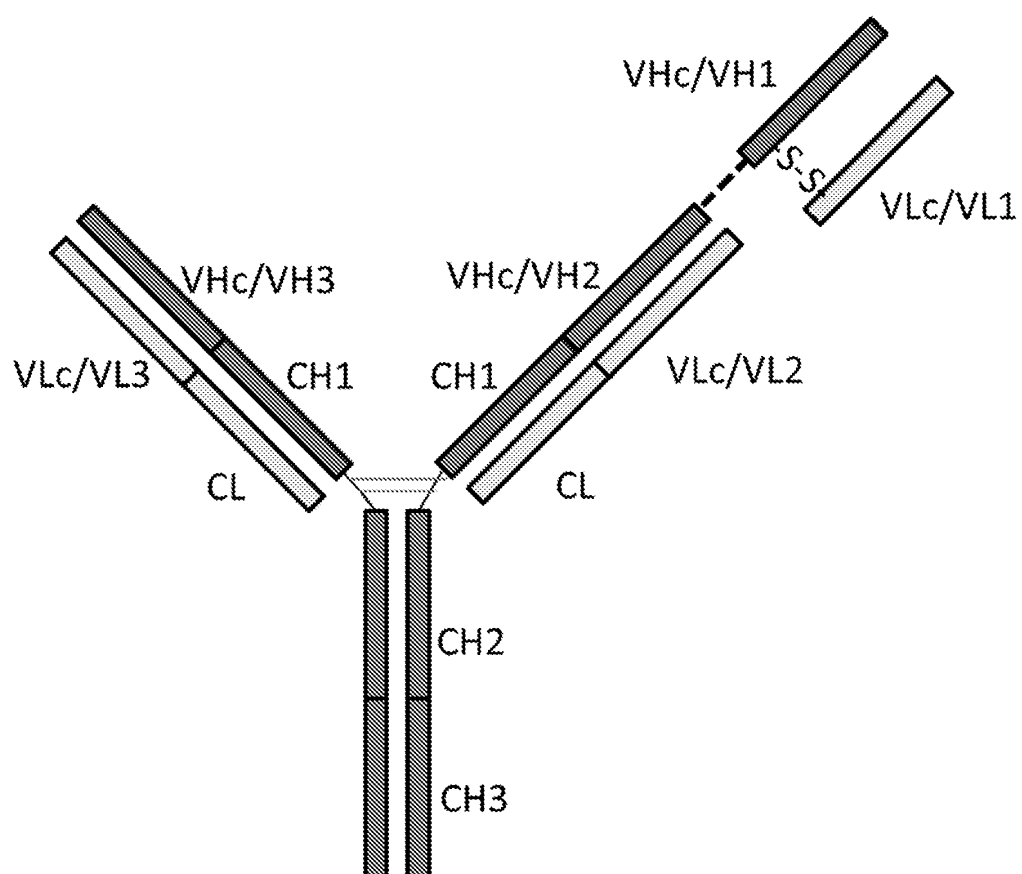


Fig. 1p

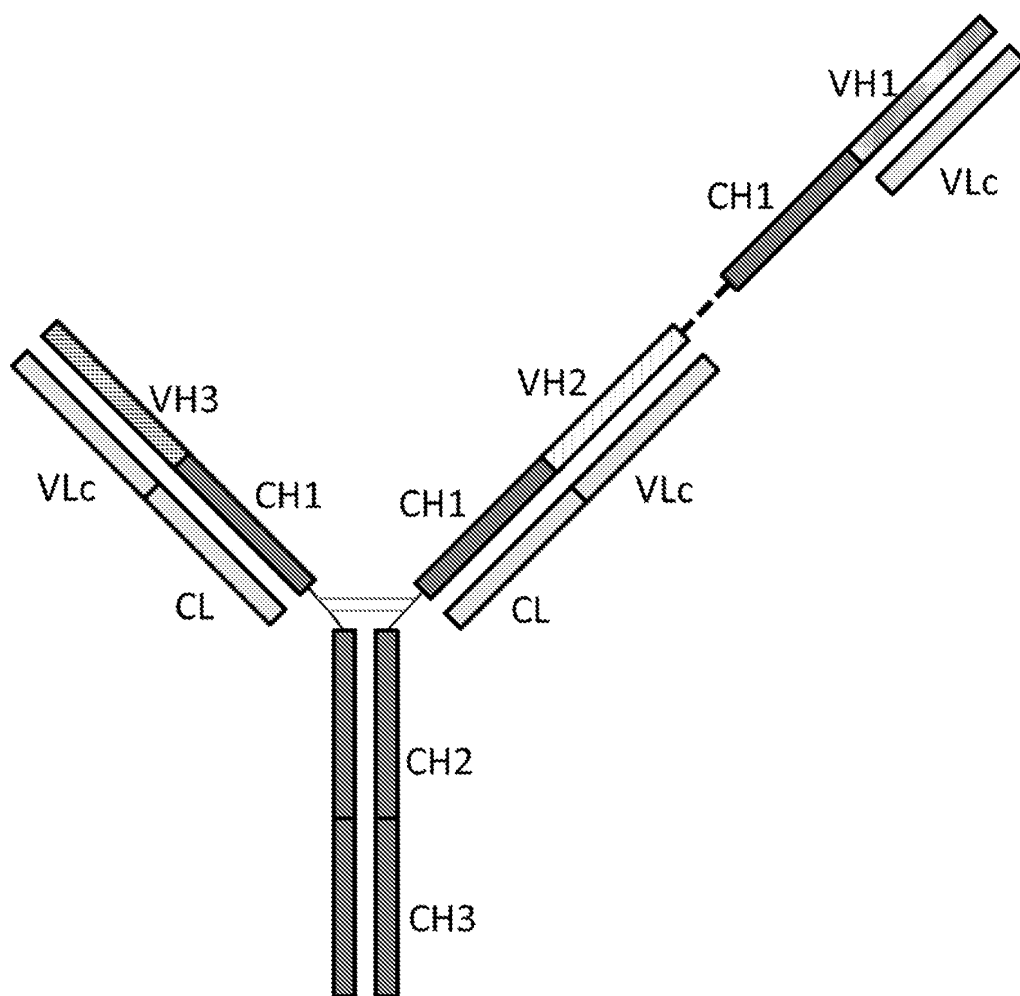


Fig. 1q

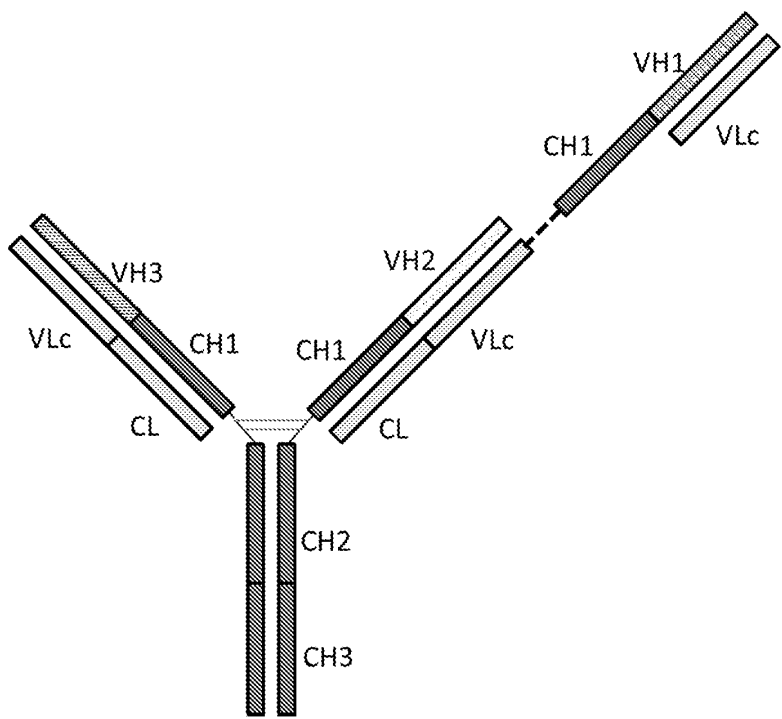


Fig. 1r



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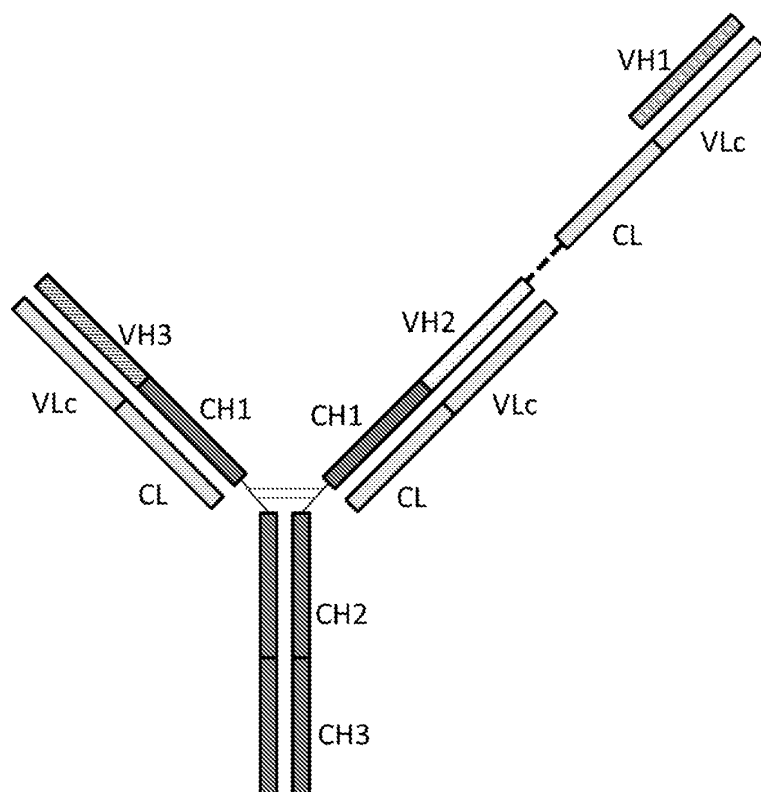


Fig. 1t

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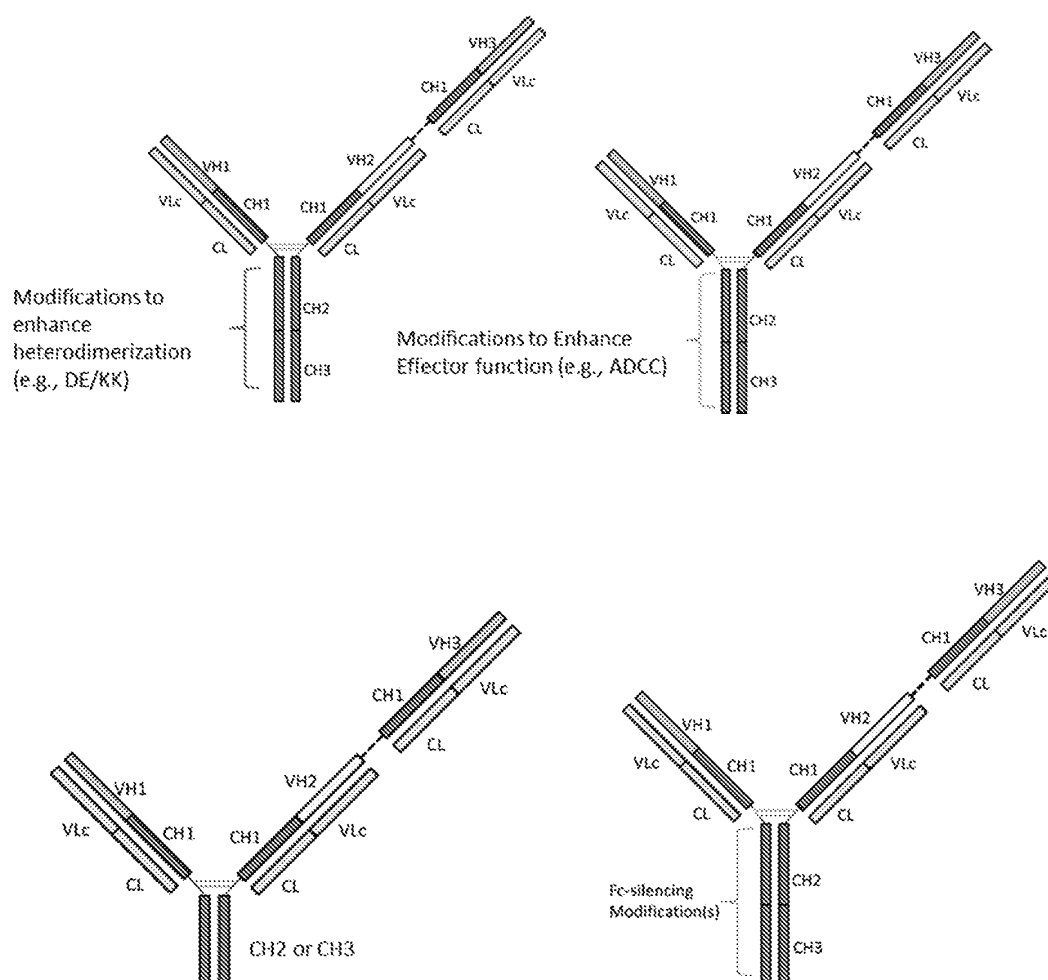


Fig. 1u

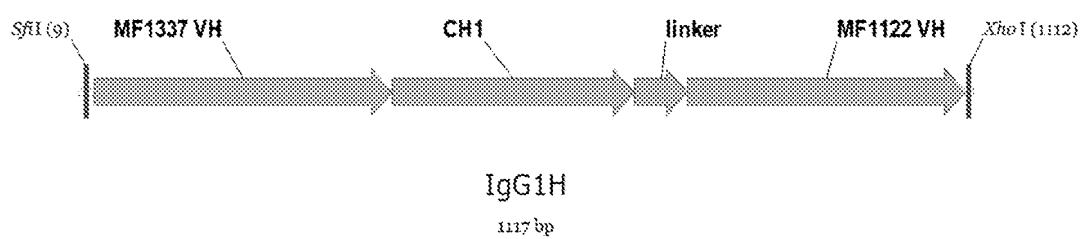


Fig. 2a

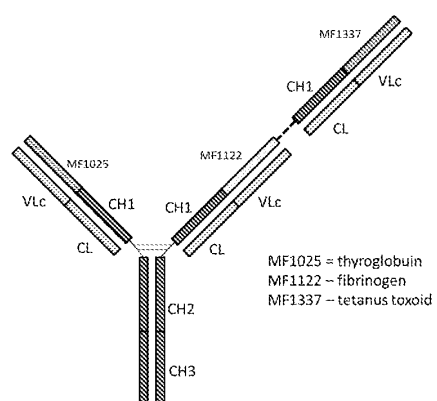


Fig. 2b

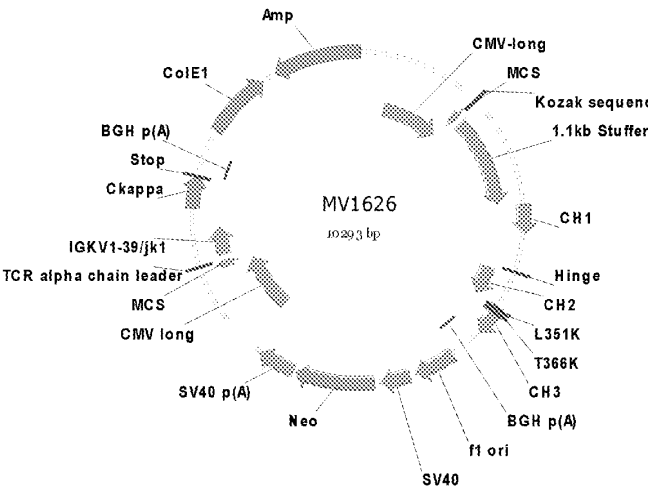


Fig. 3

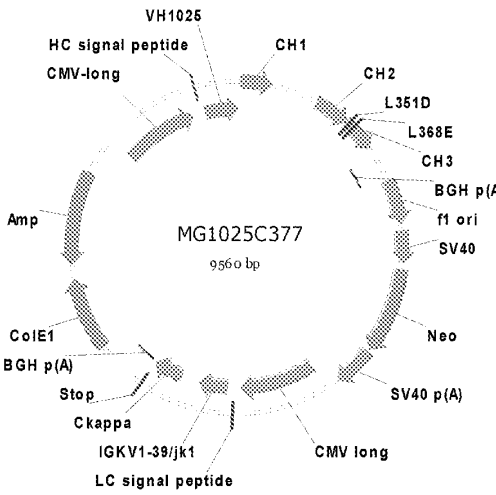


Fig. 4

|                          |                                                                                                                                                 |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | SEQ ID NO:                                                                                                                                      |
| Translation of IgG1H     | ASTKGPSVFPFLAPSSKSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITSPSPAPPELLGG-----EVQL           |
| Translation of IgG1MH    | ASTKGPSVFPFLAPSSKSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITSPSP-----EVQL                   |
| Translation of IgG1 UM   | ASTKGPSVFPFLAPSSKSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITSPSP-----EVQL                   |
| Translation of IgG1Q14S  | ASTKGPSVFPFLAPSSKSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPELLG-----EVQL                 |
| Translation of IgG1H1L   | ASTKGPSVFPFLAPSSKSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPELLG--G-----EVQL              |
| Translation of IgG1R     | ASTKGPSVFPFLAPSSKSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAAAKAAKAPPELLGG-----EVQL        |
| Translation of IgG2AH    | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEGPPSPAPPVAG-----EVQL    |
| Translation of IgG2AMH   | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEGPPSP-----EVQL          |
| Translation of IgG2A1L   | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEAPPVAG-----EVQL         |
| Translation of IgG2AGHSS | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEAPPVAG-----EVQL         |
| Translation of IgG2A2    | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEGAGGSGGSGS-----EVQL     |
| Translation of IgG2B     | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEGAAKAAKAPPVAG-----EVQL  |
| Translation of IgG2BH    | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEGPPSPAPPVAG-----EVQL    |
| Translation of IgG2B1L   | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEAPPVAG-----EVQL         |
| Translation of IgG2BR    | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSNFGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITVERKSSVEAATAKAAKAPPVAG-----EVQL |
| Translation of IgG3H1H   | ASTKGPSVFPFLAPCSRSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPPELLGG-----EVQL               |
| Translation of IgG3B     | ASTKGPSVFPFLAPCSRSTSGGTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPPELLGG-----EVQL               |
| Translation of IgG4H     | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPPELLGG-----EVQL               |
| Translation of IgG4H1H   | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPPELLGG-----EVQL               |
| Translation of IgG4MH    | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPPELLGG-----EVQL               |
| Translation of IgG4H1L   | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPPELLGG-----EVQL               |
| Consensus                | ASTKGPSVFPFLAPCSRSTSESTAALGCLVKDGYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHNKPSNTKYDKRVRPKSCDKTHITAPPELLGG-----TS-----EVQL        |

Figure 5

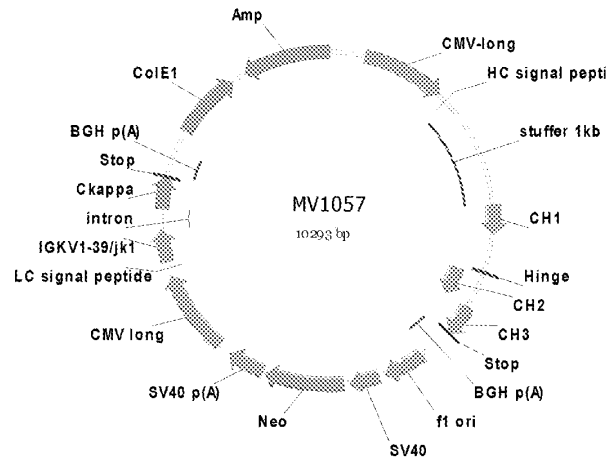


Figure 6

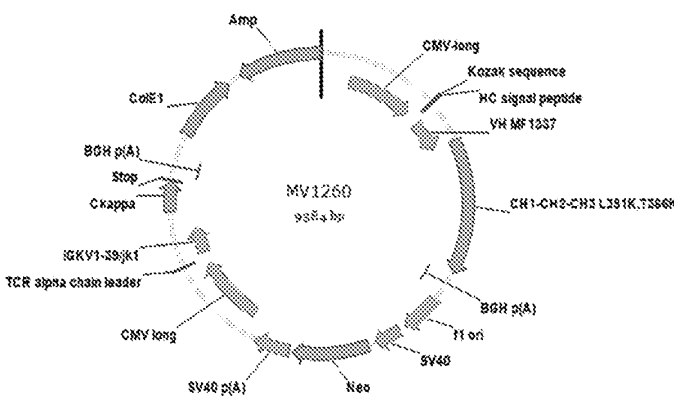


Figure 7

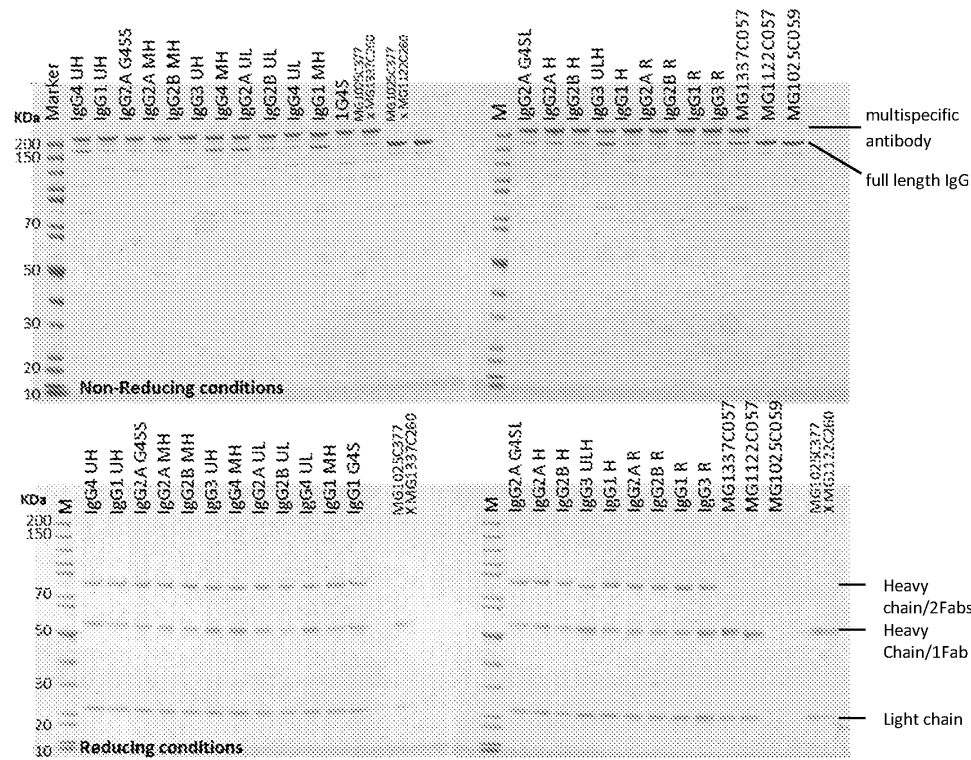


Fig. 8

[illegible]

| Genet  | TT     |        |        |        |        |        |        |        |        |        | F      |        |        |        |        |        |        |        |        |        | T      |        |        |        |        |        |        |        |        |        | Functies |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
|        | 42.100 | 46.200 | 50.300 | 54.400 | 58.500 | 62.600 | 66.700 | 70.800 | 74.900 | 79.000 | 42.100 | 46.200 | 50.300 | 54.400 | 58.500 | 62.600 | 66.700 | 70.800 | 74.900 | 79.000 | 42.100 | 46.200 | 50.300 | 54.400 | 58.500 | 62.600 | 66.700 | 70.800 | 74.900 | 79.000 |          |
| gcl1   | 3.50   | 3.77   | 3.98   | 42.34  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.50   | 3.77   | 3.98   | 42.34  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.50   | 3.77   | 3.98   | 42.34  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 11       |
| gcl3-M | 3.51   | 3.82   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.51   | 3.82   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.51   | 3.82   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 9        |
| gcl3A  | 3.52   | 3.83   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.52   | 3.83   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.52   | 3.83   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 9        |
| gcl4   | 3.53   | 3.84   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.53   | 3.84   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.53   | 3.84   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 9        |
| gcl4A  | 3.54   | 3.85   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.54   | 3.85   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.54   | 3.85   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 9        |
| gcl5   | 3.55   | 3.86   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.55   | 3.86   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.55   | 3.86   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 8        |
| gcl5A  | 3.56   | 3.87   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.56   | 3.87   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.56   | 3.87   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 8        |
| gcl6   | 3.57   | 3.88   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.57   | 3.88   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.57   | 3.88   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 7        |
| gcl6A  | 3.58   | 3.89   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.58   | 3.89   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.58   | 3.89   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 6        |
| gcl7   | 3.59   | 3.90   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.59   | 3.90   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.59   | 3.90   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 5        |
| gcl7A  | 3.60   | 3.91   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.60   | 3.91   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.60   | 3.91   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 4        |
| gcl8   | 3.61   | 3.92   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.61   | 3.92   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.61   | 3.92   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3        |
| gcl8A  | 3.62   | 3.93   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.62   | 3.93   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.62   | 3.93   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 2        |
| gcl9   | 3.63   | 3.94   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.63   | 3.94   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.63   | 3.94   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 1        |
| gcl9A  | 3.64   | 3.95   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.64   | 3.95   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 3.64   | 3.95   | 3.99   | 40.52  | 40.02  | 38.02  | 35.98  | 33.88  | 31.68  | 29.40  | 0        |

Fig. 10

**Figure 11A (SEQ ID NO: 35)**

DIQMTQSPSSLSASVGDRVTITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVP  
SRFSGSGSGTDFTLTISLQPEDFATYYCQQSYSTPPTFGQGTKVEIK  
RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTE  
QDSKIDSTYLSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGEC

**Figure 11B (SEQ ID NOs: 36 and 37)**

gacatccagatgacccagctctccatcctccctgtctgcatctgtaggagacagagtcacc  
D I Q M T Q S P S S L S A S V G D R V T  
atcacttgccgggcaagtcagagcattagcagctacttaaattggatcagcagaaacca  
I T C R A S Q S I S S Y L N W Y Q Q K P  
gggaaagcccctaagctcctgatctatgctgcatccagtttgcaaagtgggtcccatca  
G K A P K L L I Y A A S S L Q S G V P S  
aggttcagtggcagtggtatctgggacagatttcactctcaccatcagcagctgcaacct  
R F S G S G S G T D F T L T I S S L Q P  
gaagatttgcaacttactactgtcaacagagttacagtaccctccaacgttcggccaa  
E D F A T Y Y C Q Q S Y S T P P T F G Q  
gggaccaaggaggagatcaaa  
G T K V E I K

**Figure 11C (SEQ ID NOs: 38 and 39)**

cgaactgtggctgcaccatctgtcttcatcttcccgccatctgatgagcagttgaaatct  
R T V A A P S V F I F P P S D E Q L K S  
ggaactgcctctgttgtgctgctgaataacttctatccagagaggccaaagtacag  
G T A S V V C L L N N F Y P R E A K V Q  
tggaaggaggataacgcccctccaatcgggtaactcccaggagagtgacagagcaggac  
W K V D N A L Q S G N S Q E S V T E Q D

**Figure 11C (continued)**

agcaaggacagcacctacagcctcagcagcaccctgacgctgagcaaagcagactacgag  
S K D S T Y S L S S T L T L S K A D Y E  
aaacacaaagtctacgctgcgaagtcacccatcagggcctgagctcgcccgtcacaaag  
K H K V Y A C E V T H Q G L S S P V T K  
agcttcaacaggggagagtgttag  
S F N R G E C -

**Figure 11D (SEQ ID NO: 40)**

DIQMTQSPSSLSASVGDRVTITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVP  
SRFSGSGSGTDFTLTISLQPEDFATYYCQQSYSTPPITFGQGTRLEIK

**Figure 11E (SEQ ID NO: 41)**

DIQMTQSPSSLSASVGDRVTITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVP  
SRFSGSGSGTDFTLTISLQPEDFATYYCQQSYSTP

| Sample   | Wavelength (nm) | Absorbance | pH 5.0           |                  |                  |                  | pH 7.0           |                  |                  |                  | pH 9.0           |                  |                  |                  | pH 11.0          |                  |                  |                  | pH 13.0          |                  |                  |                  |     |    |     |    |     |     |     |     |    |    |
|----------|-----------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----|----|-----|----|-----|-----|-----|-----|----|----|
|          |                 |            | 10 <sup>-1</sup> | 10 <sup>-2</sup> | 10 <sup>-3</sup> | 10 <sup>-4</sup> | 10 <sup>-1</sup> | 10 <sup>-2</sup> | 10 <sup>-3</sup> | 10 <sup>-4</sup> | 10 <sup>-1</sup> | 10 <sup>-2</sup> | 10 <sup>-3</sup> | 10 <sup>-4</sup> | 10 <sup>-1</sup> | 10 <sup>-2</sup> | 10 <sup>-3</sup> | 10 <sup>-4</sup> | 10 <sup>-1</sup> | 10 <sup>-2</sup> | 10 <sup>-3</sup> | 10 <sup>-4</sup> |     |    |     |    |     |     |     |     |    |    |
| P23-7061 | 96.14           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0375           | 0.0385           | 0.0374           | 0.0373           | 1.0              | 1.2              | 1.4              | 1.4              | 1.2              | 1.8              | 3.5              | 3.0              | 0.5              | 9.3              | 8.3              | 2.9              | 0.1              | 2.1 | 18 | 5   | 13 | 39  | 96  | 83  | 82  |    |    |
| P23-7062 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0380           | 0.0388           | 0.0386           | 0.0383           | 1.0              | 1.3              | 1.2              | 1.5              | 1.2              | 2.5              | 2.5              | 0.2              | 4.2              | 1.5              | 1.8              | 0.0              | 0.1              | 4.5 | 6  | 14  | 7  | 24  | 100 | 93  | 86  | 82 |    |
| P23-7063 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0375           | 0.0385           | 0.0377           | 0.0374           | 1.0              | 1.0              | 1.2              | 1.4              | 1.2              | 1.8              | 3.2              | 2.1              | 0.5              | 7.7              | 6.3              | 2.5              | 0.1              | 2.1 | 26 | 5   | 12 | 180 | 70  | 49  | 72  | 72 |    |
| P23-7064 | 96.34           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0375           | 0.0383           | 0.0377           | 0.0374           | 1.0              | 1.0              | 1.1              | 1.5              | 1.5              | 1.8              | 1.5              | 1.2              | 0.5              | 4.7              | 4.2              | 2.5              | 0.5              | 2.4 | 4  | 57  | 14 | 25  | 100 | 73  | 102 | 50 |    |
| P23-7065 | 96.14           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0382           | 0.0388           | 0.0386           | 0.0384           | 1.0              | 1.0              | 1.0              | 1.5              | 1.5              | 2.3              | 4.5              | 0.2              | 4.2              | 0.9              | 1.5              | 1.2              | 0.5              | 4.5 | 4  | 7   | 11 | 99  | 100 | 107 | 102 | 88 |    |
| P23-7067 | 96.14           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0382           | 0.0378           | 0.0378           | 0.0378           | 1.0              | 1.3              | 1.3              | 1.3              | 1.3              | 1.8              | 0.5              | 0.5              | 0.2              | 4.5              | 4.5              | 1.8              | 0.5              | 4.5 | 3  | 119 | 57 | 100 | 57  | 102 | 88  | 50 |    |
| P23-7068 | 96.14           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0380           | 0.0383           | 0.0387           | 0.0388           | 1.0              | 2.2              | 1.3              | 1.3              | 1.4              | 2.5              | 3.5              | 0.5              | 0.5              | 4.5              | 4.5              | 1.8              | 0.5              | 4.5 | 4  | 6   | 8  | 8   | 100 | 93  | 98  | 55 | 55 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0386           | 0.0384           | 0.0387           | 0.0383           | 1.0              | 1.0              | 1.4              | 1.5              | 1.5              | 7.8              | 3.1              | 0.5              | 0.5              | 4.5              | 4.5              | 1.8              | 0.5              | 4.5 | 4  | 31  | 8  | 58  | 100 | 93  | 98  | 55 | 55 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0386           | 0.0386           | 0.0386           | 0.0386           | 1.0              | 1.6              | 1.5              | 1.3              | 1.3              | 13.4             | 9.5              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 6   | 24 | 34  | 100 | 99  | 97  | 92 | 62 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0384           | 0.0382           | 0.0375           | 0.0389           | 1.0              | 1.4              | 1.2              | 1.3              | 1.5              | 4.5              | 5.1              | 0.5              | 0.5              | 4.5              | 4.5              | 1.1              | 0.5              | 4.5 | 4  | 37  | 31 | 67  | 100 | 94  | 94  | 96 | 91 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0382           | 0.0385           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 133.7            | 67.44            | 0.0383           | 0.0385           | 0.0386           | 0.0388           | 1.0              | 2.3              | 1.3              | 1.4              | 1.5              | 4.5              | 1.8              | 0.5              | 0.5              | 4.5              | 4.5              | 1.2              | 0.5              | 4.5 | 4  | 17  | 14 | 31  | 100 | 93  | 98  | 98 | 78 |
| P23-7070 | 96.24           | 16.966     | 112.9            | 13               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |     |    |     |    |     |     |     |     |    |    |

Fig 13.

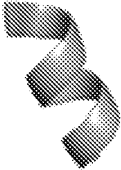
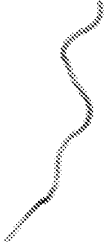
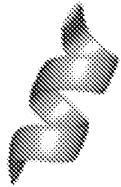
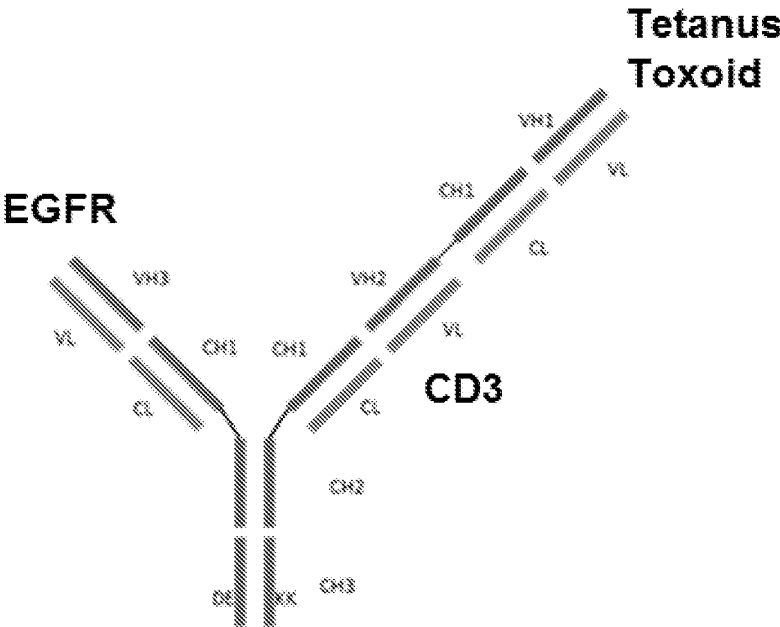
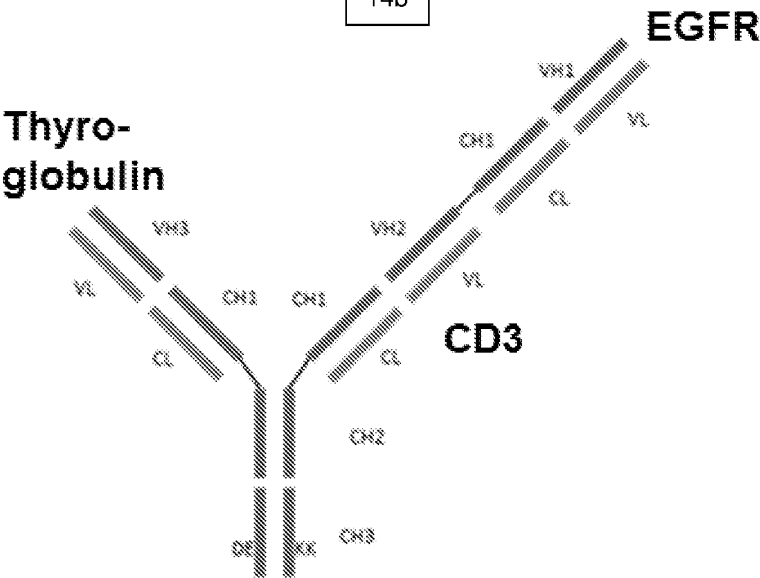
|                                                                                                        |               |                                                                                                        |               |
|--------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------|---------------|
| <div>IgG1 UH</div>    | SEQ ID NO: 2  | <div>IgG2A H</div>    | SEQ ID NO: 15 |
| <div>IgG2A MH</div>  | SEQ ID NO: 4  | <div>IgG2B H</div>   | SEQ ID NO: 16 |
| <div>IgG1 MH</div>  | SEQ ID NO: 11 | <div>IgG1 H</div>   | SEQ ID NO: 19 |
| <div>IgG1G4</div>   | SEQ ID NO: 12 | <div>IgG2B R</div>  | SEQ ID NO: 21 |

Fig. 14

14a



14b

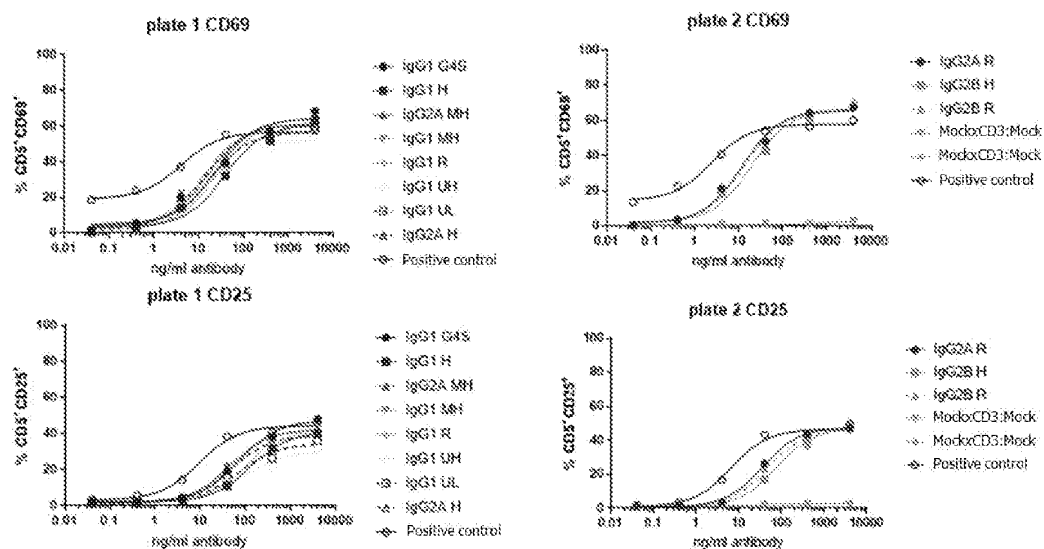


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Fig. 15a

T cell Activation:

EGFRxCD3:TT



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Fig. 15b

T cell Activation:

THYROxCD3:EGFR

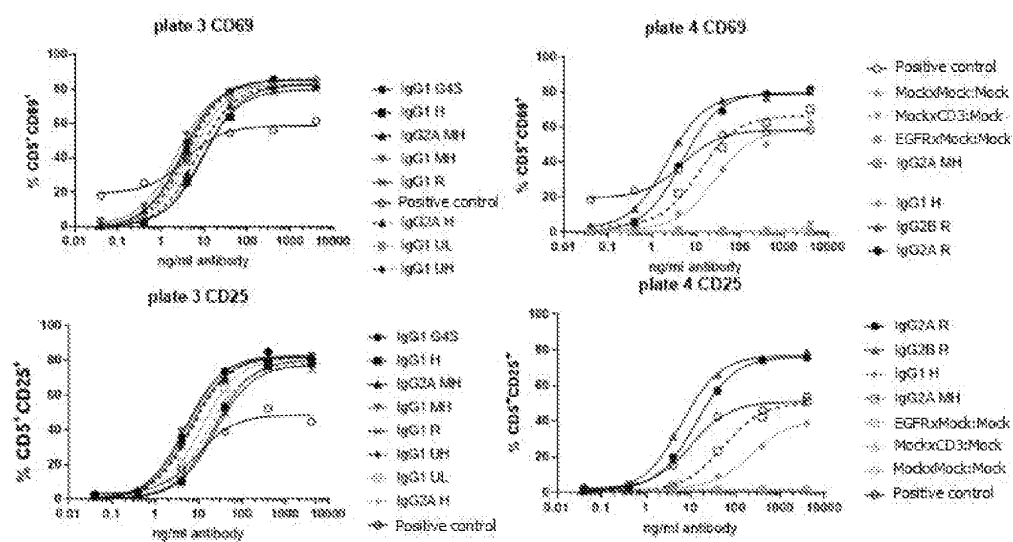


Fig. 16a

T cell Cytotoxicity:  
EGFRxCD3:TT

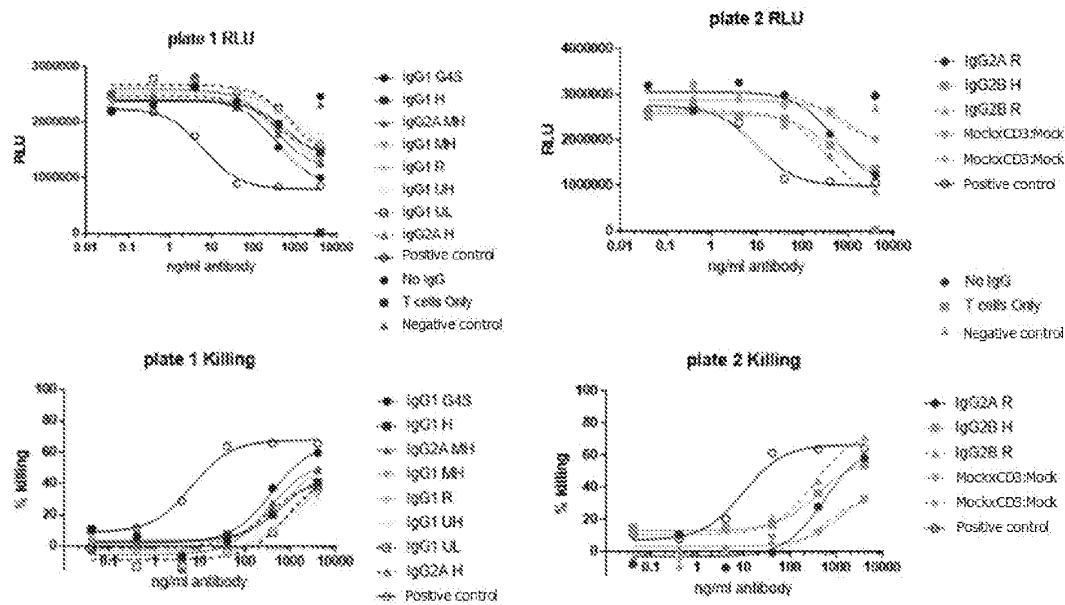


Fig. 16b

T cell Cytotoxicity:

THYROxCD3:EGFR

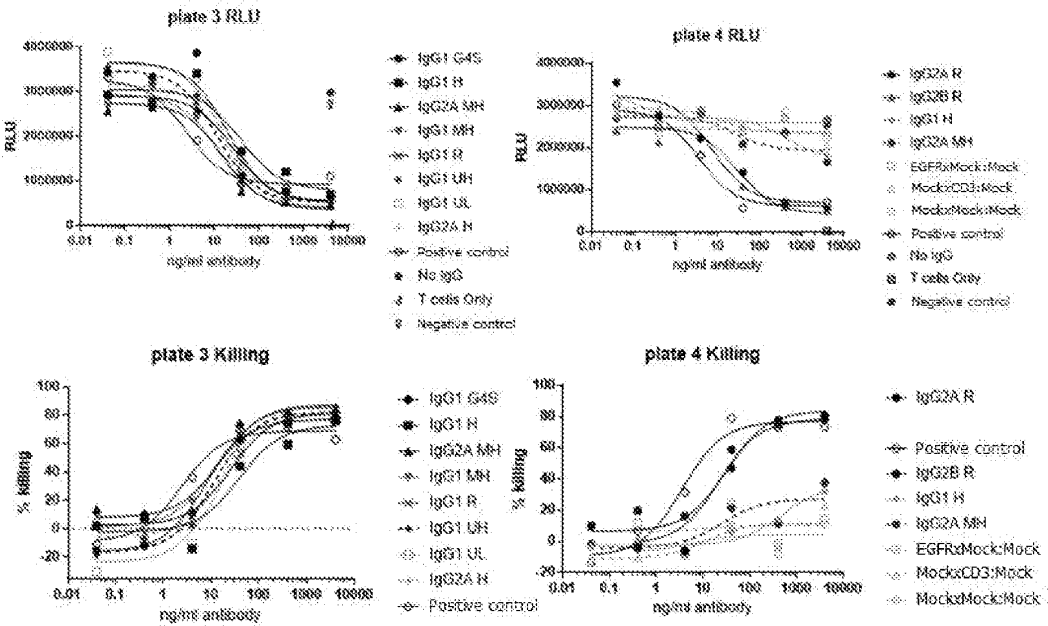


Fig. 17a

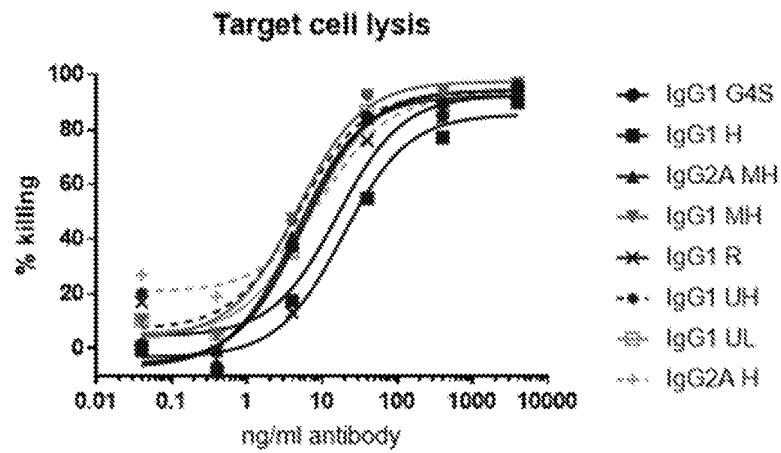
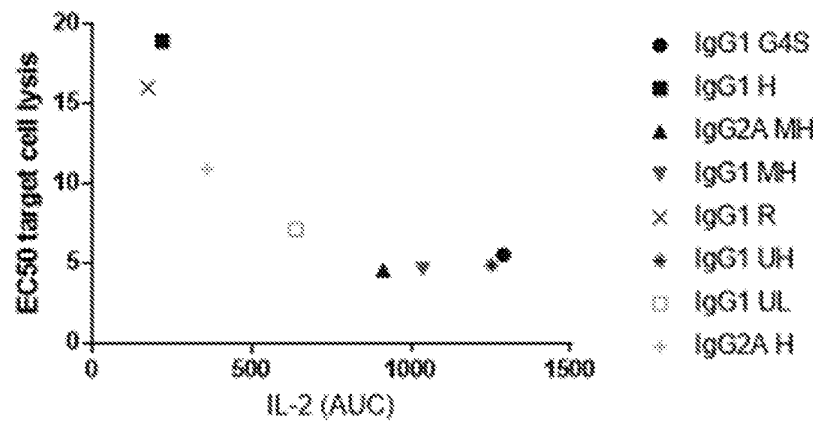


Fig. 17b



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Fig. 17c

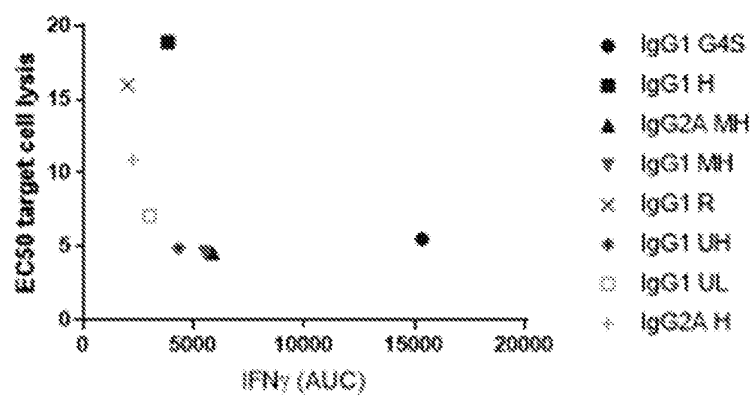
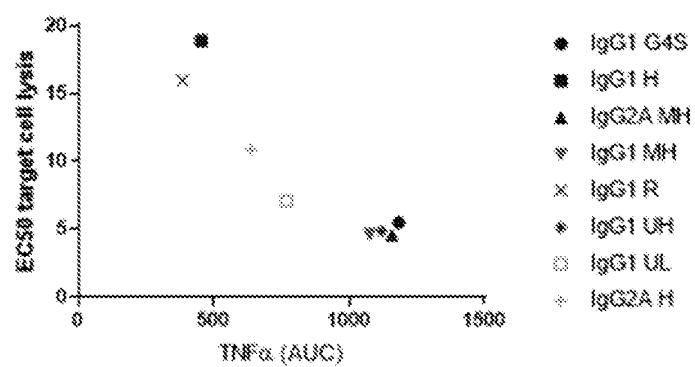
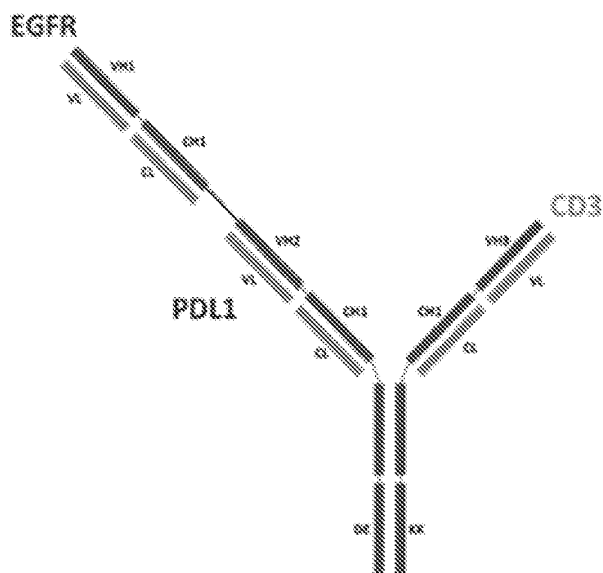


Fig. 17d



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Fig. 18



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Fig. 19

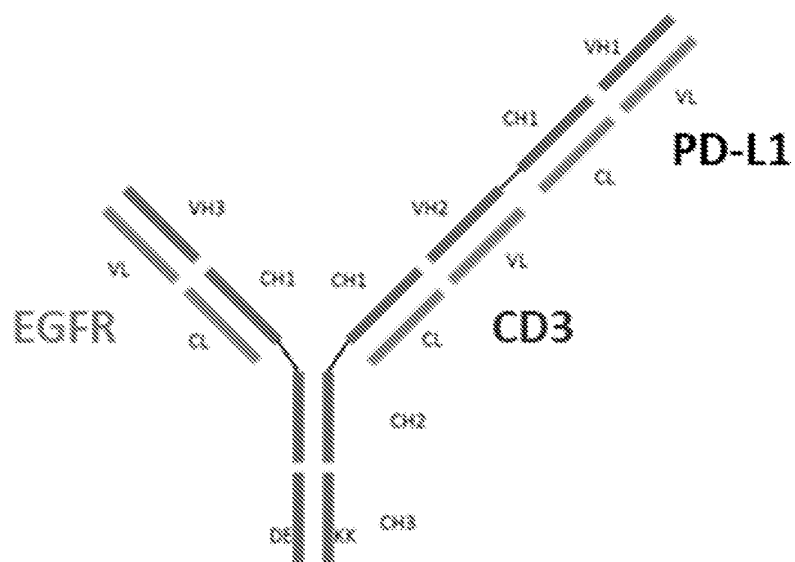


Fig. 20

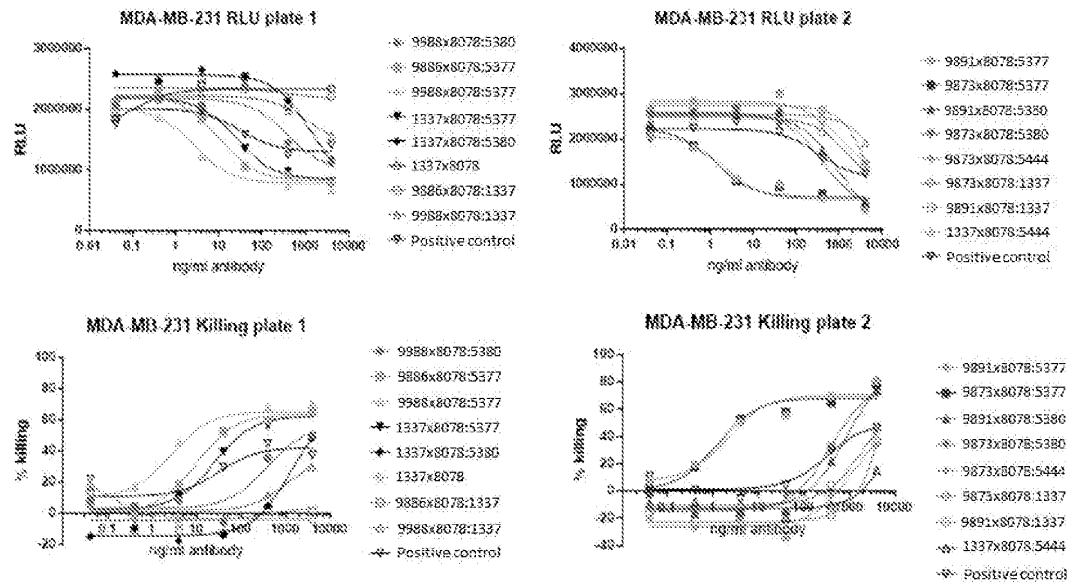


Fig. 21

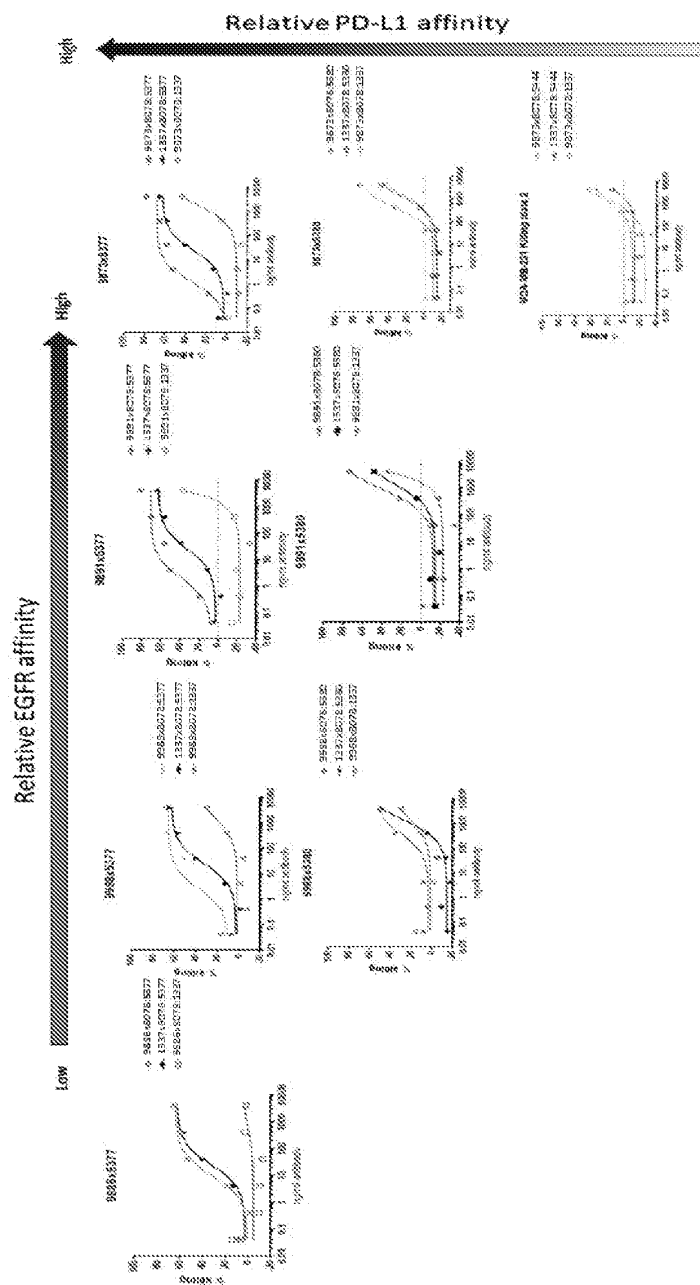


Fig. 22

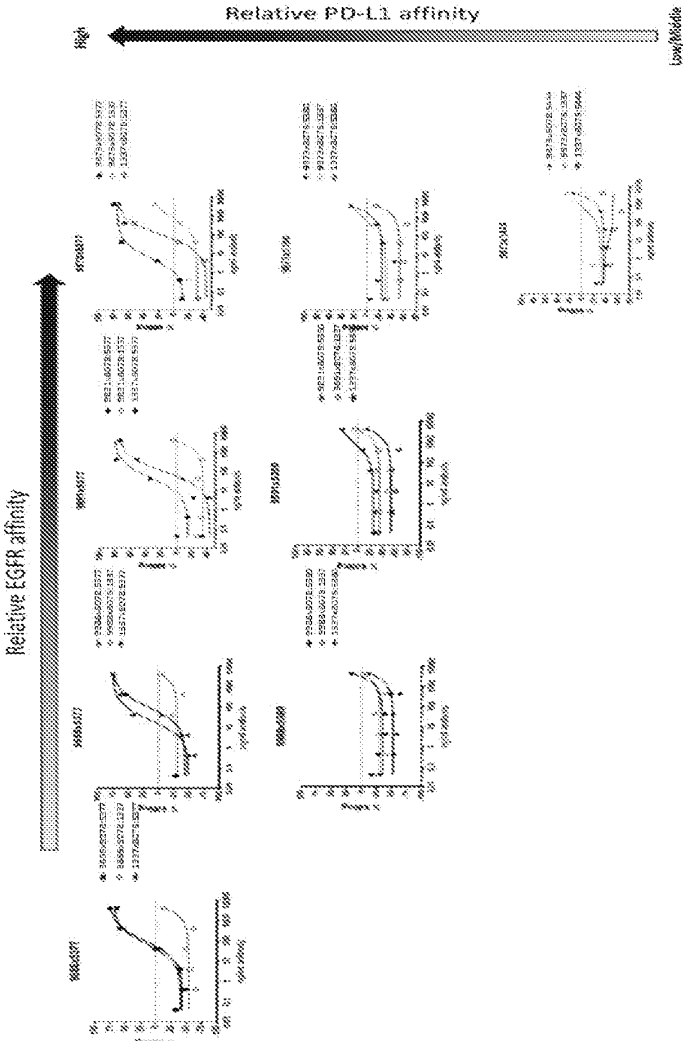


Fig. 23a

| FACS<br>MDA<br>PD-L1 | Norm AUC            | EGFR   |     |        |     |     |        |
|----------------------|---------------------|--------|-----|--------|-----|-----|--------|
|                      |                     | Mock - | -   | MF9988 | -   | -   | MF9891 |
|                      | -                   | 12     | N/A | 50     | 69  | 83  | 146    |
|                      | -                   | 50     | 71  | 88     | 116 | 113 | 148    |
|                      | -                   | 45     | 81  | N/A    | 112 | 121 | 148    |
|                      | -                   | 8      | 32  | 30     | 63  | N/A | 104    |
|                      | MF5380              | 5      | 14  | N/A    | 40  | 43  | 71     |
|                      | MF5444              | 12     | 28  | 39     | 51  | 72  | 102    |
|                      | Control<br>EGFRxCD3 |        | 28  | 25     | 26  | 60  | 101    |

Fig. 23b

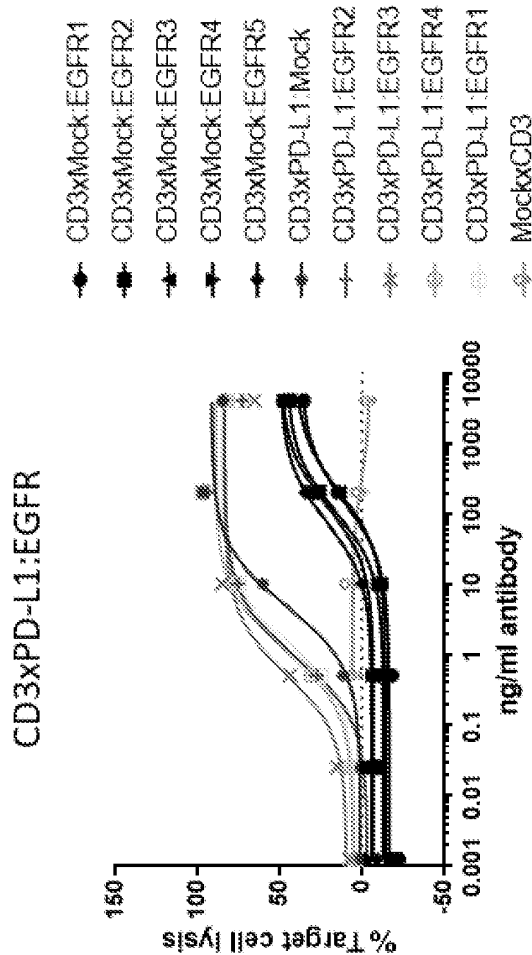


Fig. 24

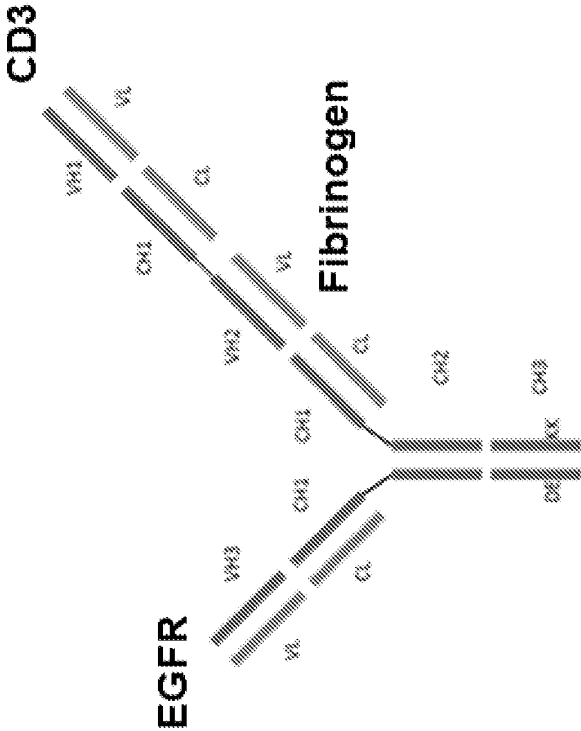


Fig. 25

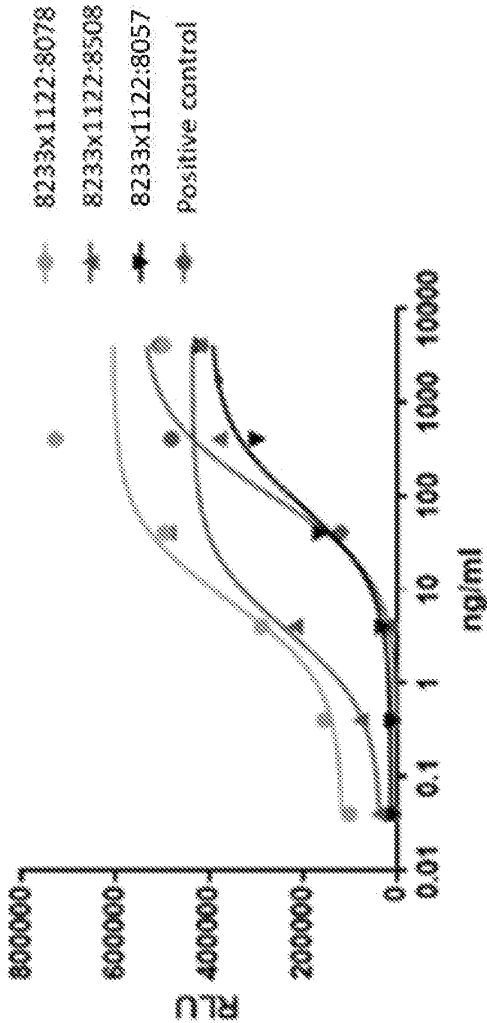


Fig. 26

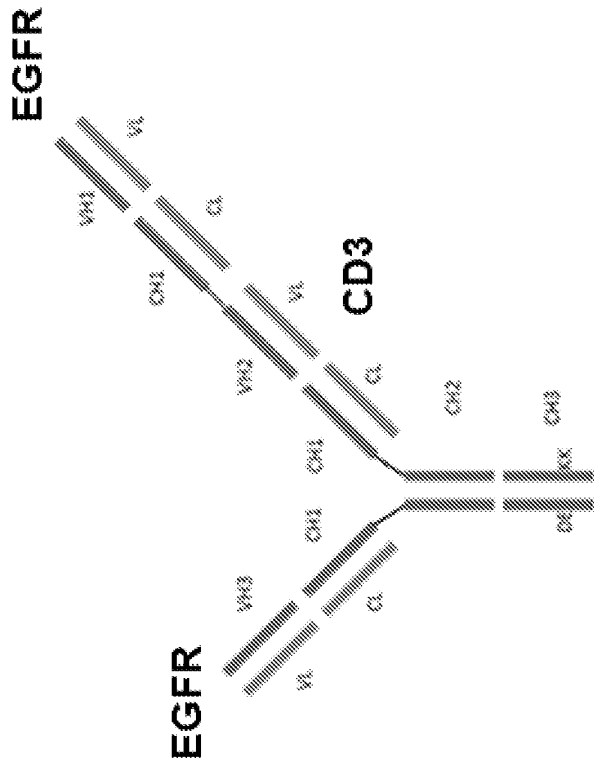


Fig. 27

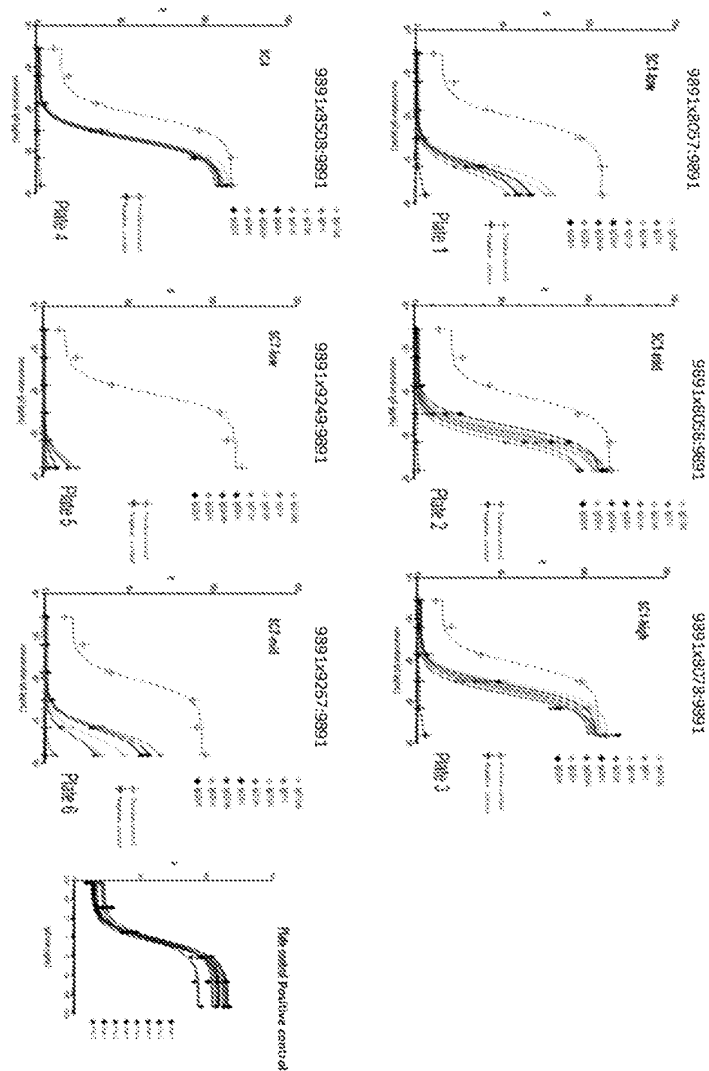


Fig. 28

