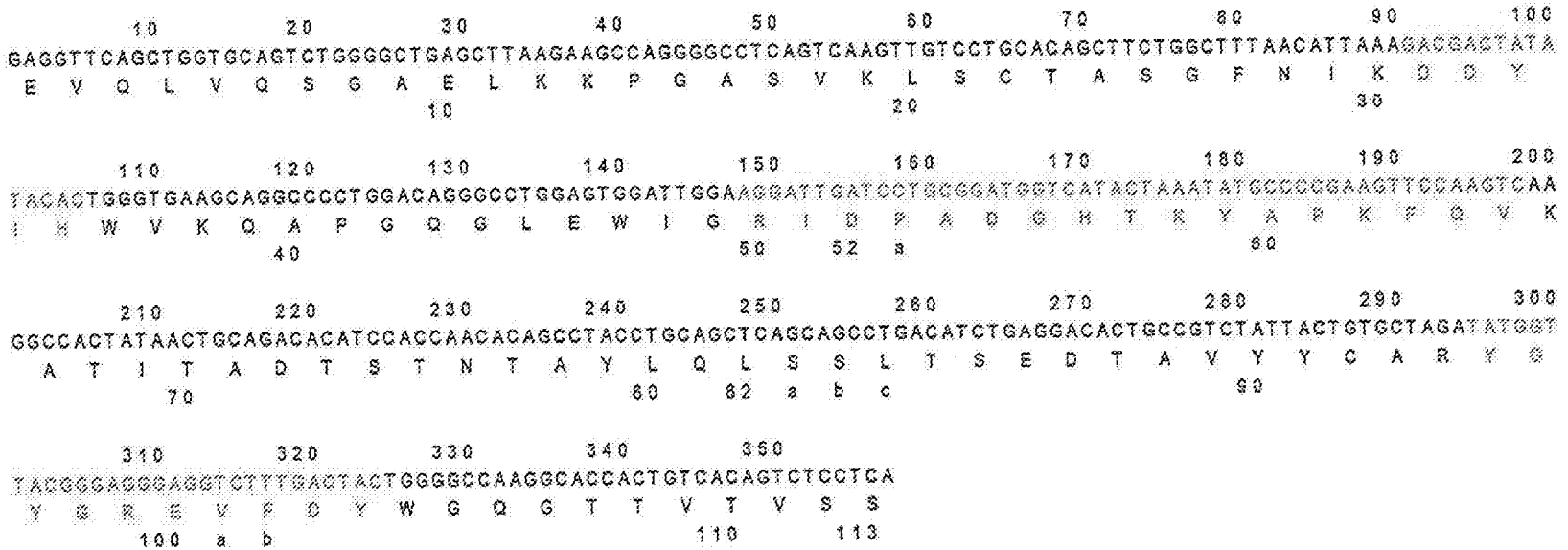
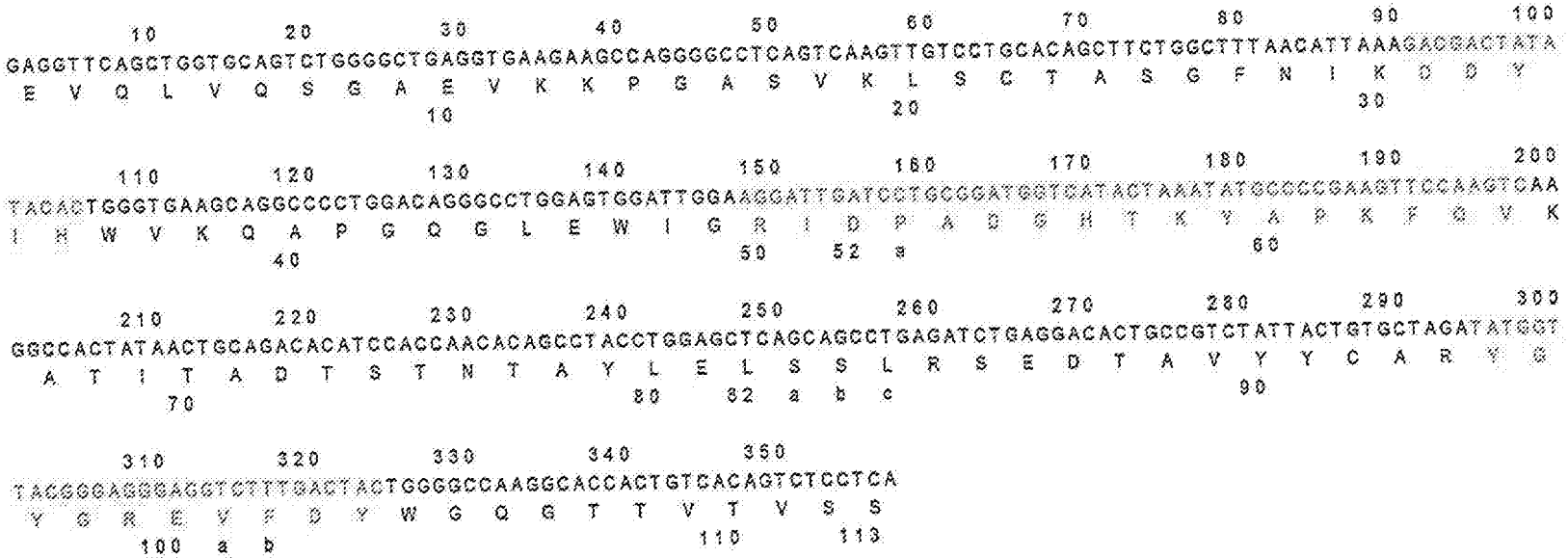
## Figure 1
## VH Variant 1



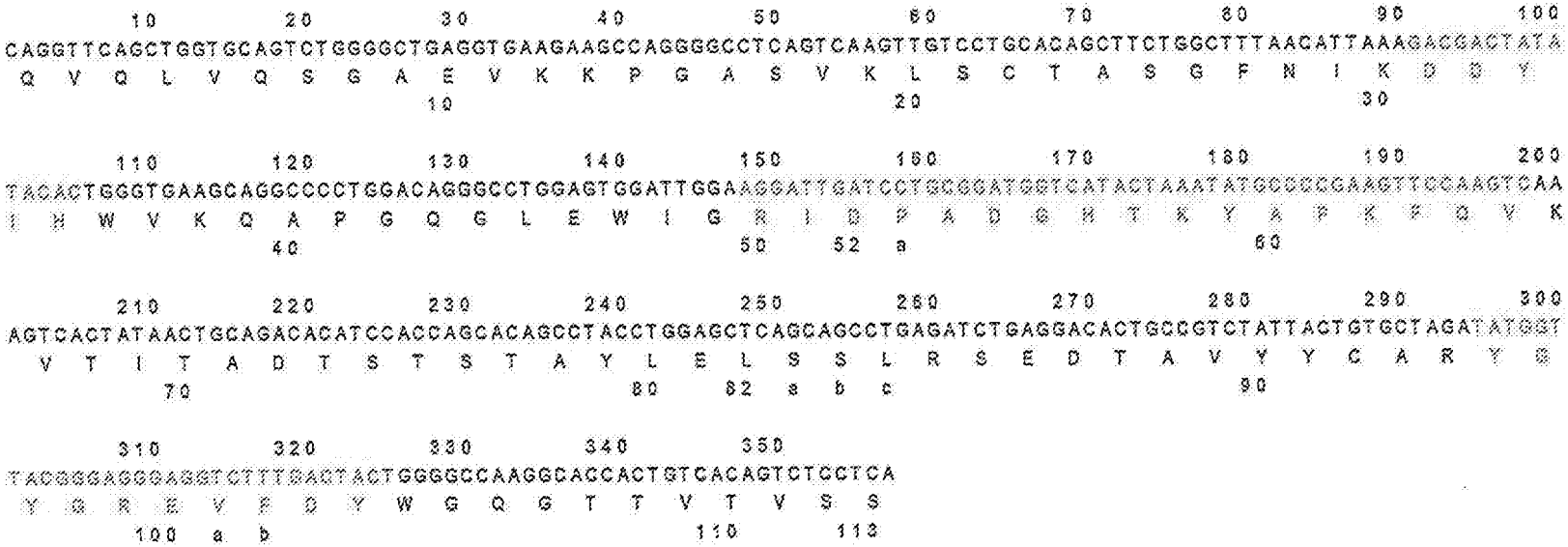

CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

## Figure 2
## VH Variant 2



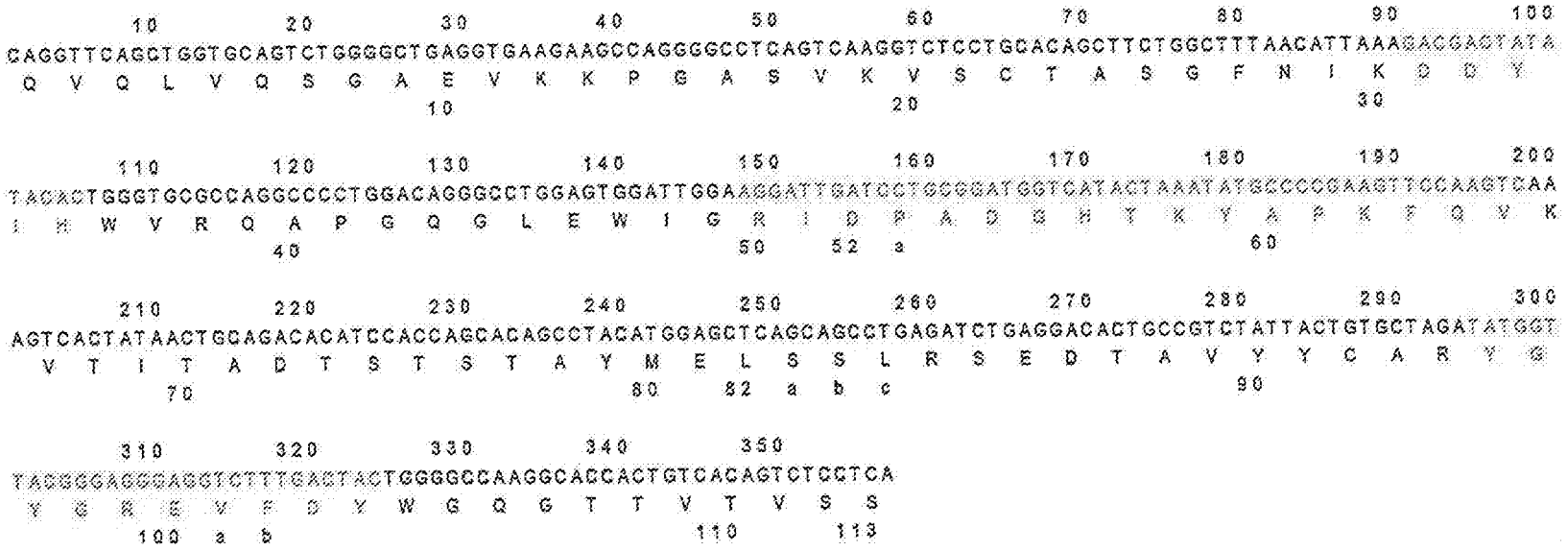

CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

## Figure 3
## VH Variant 3



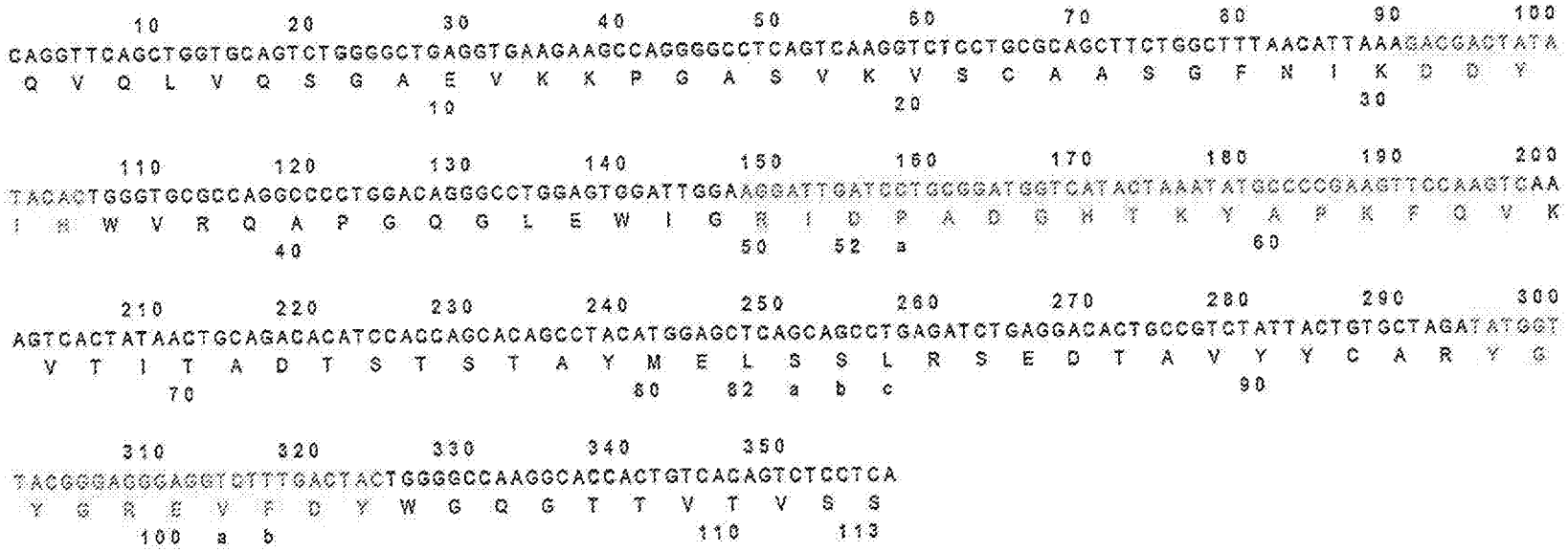

CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

## Figure 4
## VH Variant 4



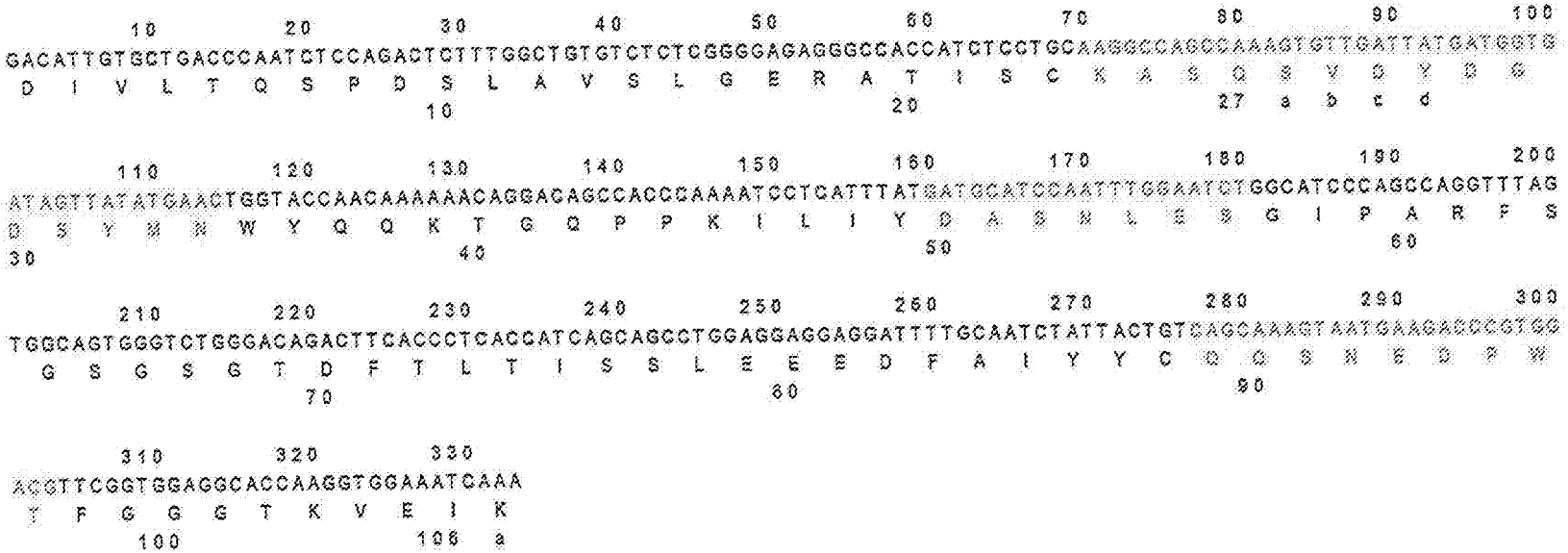

CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

## Figure 5
## VH Variant 5



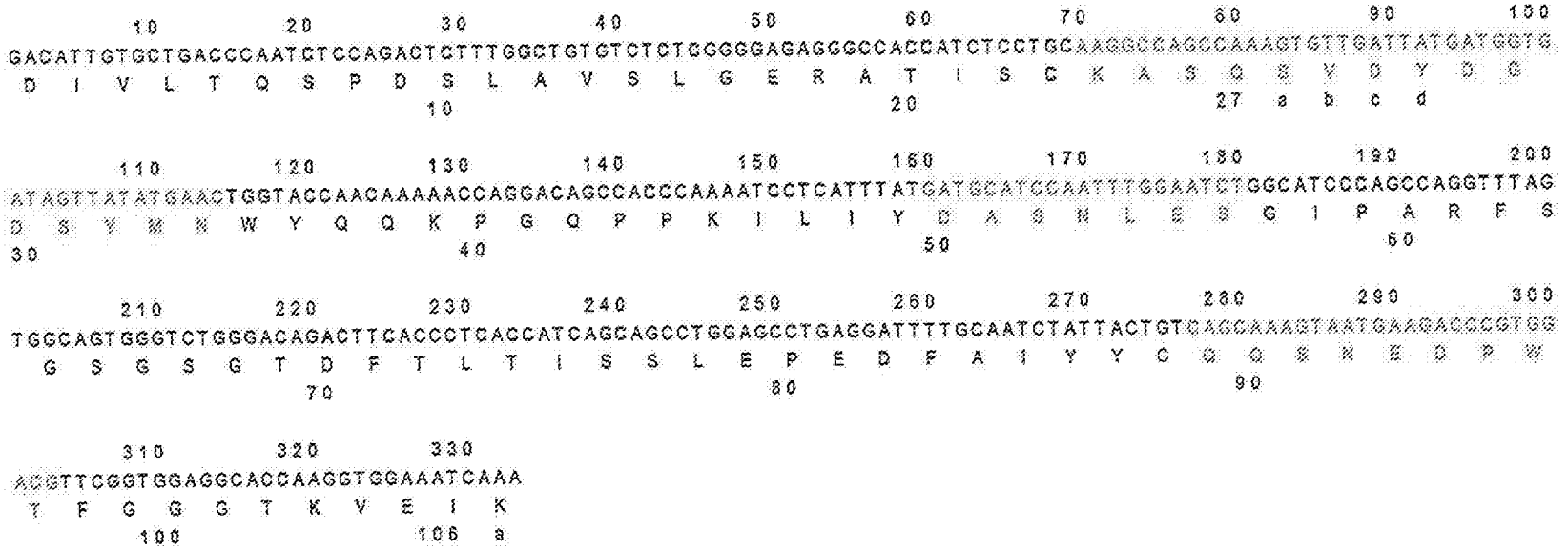

CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

**Figure 6**
**VK Variant 1**



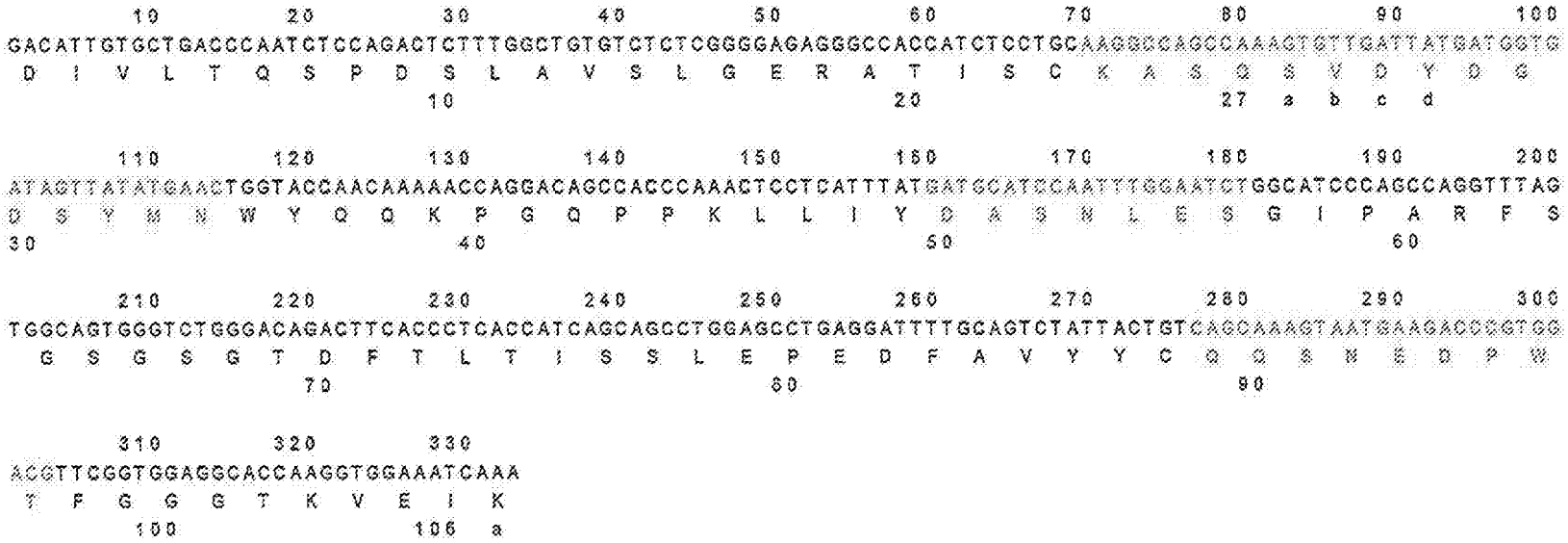

CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

## Figure 7
## VK Variant 2




CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

## Figure 8
## VK Variant 5




CDR definitions and protein sequence numbering according to Kabat. CDR nucleotide and protein sequences are highlighted in red.

Figure 9 – Table 2: VH Variants

| Amino Acid Position | TNT005 (Parental Antibody) | VH Variant 1 | VH Variant 2 | VH Variant 3 | VH Variant 4 | VH Variant 5 |
|---|---|---|---|---|---|---|
| 1 | E | E | E | Q | Q | Q |
| 5 | Q | V | V | V | V | V |
| 11 | L | L | V | V | V | V |
| 12 | V | K | K | K | K | K |
| 13 | R | K | K | K | K | K |
| 20 | L | L | L | L | V | V |
| 23 | T | T | T | T | T | A |
| 38 | K | K | K | K | R | R |
| 40 | R | A | A | A | A | A |
| 42 | E | G | G | G | G | G |
| 67 | A | A | A | V | V | V |
| 75 | S | T | T | T | T | T |
| 76 | N | N | N | S | S | S |
| 80 | L | L | L | L | M | M |
| 81 | Q | Q | E | E | E | E |
| 83 | T | T | R | R | R | R |
| 109 | L | V | V | V | V | V |

Figure 10

Table 3: VK Variants

| Amino Acid Position | TNT005 (Parental Antibody) | VK Variant 1 | VK Variant 2 | VK Variant 5 |
|---|---|---|---|---|
| 9 | A | D | D | D |
| 17 | Q | E | E | E |
| 40 | T | T | P | P |
| 46 | I | I | I | L |
| 74 | N | T | T | T |
| 76 | H | S | S | S |
| 77 | P | S | S | S |
| 78 | V | L | L | L |
| 80 | E | E | P | P |
| 83 | A | F | F | F |
| 85 | I | I | I | V |
| 104 | L | V | V | V |

# Figure 11
# Table 4

| | Direct Binding Ab to aC1s | Competition Binding w/ 50pM Biot-005 | Classical Pathway Inhibition |
|---|---|---|---|
| antibody | EC50 (M) | IC50 (M) | IC50 (M) |
| TNT005.001 | 5.586E-11 | 3.952E-11 | 1.061E-09 |
| biotin-TNT005.001 | 8.28E-11 | Not Tested | Not Tested |
| humanized VH1/Vk1 | 2.007E-10 | 1.238E-10 | 1.2E-09 |
| humanized VH1/Vk2 | 8.797E-11 | 5.566E-11 | 1.137E-09 |
| humanized VH1/Vk5 | 1.074E-10 | 1.288E-10 | 1.257E-09 |
| humanized VH2/Vk1 | 1.374E-10 | 1.44E-10 | 1.234E-09 |
| humanized VH2/Vk2 | 1.335E-10 | 1.576E-10 | 1.259E-09 |
| humanized VH2/Vk5 | 1.239E-10 | 1.678E-10 | 1.272E-09 |
| humanized VH3/Vk1 | 1.68E-10 | 1.79E-10 | 1.27E-09 |
| humanized VH3/Vk2 | 1.63E-10 | 1.83E-10 | 1.26E-09 |
| humanized VH3/Vk5 | 1.38E-10 | 1.58E-10 | 1.38E-09 |
| humanized VH4/Vk1 | 1.52E-10 | 1.52E-10 | 1.35E-09 |
| humanized VH4/Vk2 | 1.19E-10 | 1.58E-10 | 1.31E-09 |
| humanized VH4/Vk5 | 2.05E-10 | 1.56E-10 | 1.54E-09 |
| humanized VH5/Vk1 | 1.13E-10 | 4.49E-11 | 1.06E-09 |
| humanized VH5/Vk2 | 1.64E-10 | 1.48E-10 | 1.31E-09 |
| humanized VH5/Vk5 | 1.65E-10 | 1.37E-10 | 1.33E-09 |

# Figure 12
# Table 5

| Humanized TNT005 Variant | $K_D$ (M) | $K_{on}$ (1/Ms) | $k_{dis}$ (1/s) | $R^2$ |
|---|---|---|---|---|
| VH1/Vk1 | 2.277E-10 | 8.641E+05 | 1.967E-04 | 0.996 |
| VH1/Vk2 | 2.078E-10 | 8.177E+05 | 1.699E-04 | 0.996 |
| VH1/Vk5 | 2.169E-10 | 7.763E+05 | 1.684E-04 | 0.996 |
| VH2/Vk1 | 2.508E-10 | 8.294E+05 | 2.080E-04 | 0.996 |
| VH2/Vk2 | 2.059E-10 | 8.354E+05 | 1.720E-04 | 0.997 |
| VH2/Vk5 | 2.080E-10 | 7.979E+05 | 1.660E-04 | 0.996 |
| VH3/Vk2 | 5.850E-10 | 8.379E+05 | 4.902E-04 | 0.997 |
| VH5/Vk1 | 4.572E-10 | 1.030E+06 | 4.710E-04 | 0.996 |

Figure 13

EPTMYGEILSPNYPQAYPSEVEKSWDIEVPEGYGIHLYFTHLDIELSENCAYDSVQIISG
DTEEGRLCGQRSSNNPHSPIVEEFQVPYNKLQVIFKSDFSNEERFTGFAAYYVATDINEC
TDFVDVPCSHFCNNFIGGYFCSCPPEYFLHDDMKNCGVNCSGDVFTALIGEIASPNYPKP
YPENSRCEYQIRLEKGFQVVVTLRREDFDVEAADSAGNCLDSLVFVAGDRQFGPYCGHGF
PGPLNIETKSNALDIIFQTDLTGQKKGWKLRYHGDPMPCPKEDTPNSVWEPAKAKYVFRD
VVQITCLDGFEVVEGRVGATSFYSTCQSNGKWSNSKLKCQPVDCGIPESIENGKVEDPES
TLFGSVIRYTCEEPYYYMENGGGGEYHCAGNGSWVNEVLGPELPKCVPVCGVPREPFEEK
QRIIGGSDADIKNFPWQVFFDNPWAGGALINEYWVLTAAHVVEGNREPTMYVGSTSVQTS
RLAKSKMLTPEHVFIHPGWKLLEVPEGRTNFDNDIALVRLKDPVKMGPTVSPICLPGTSS
DYNLMDGDLGLISGWGRTEKRDRAVRLKAARLPVAPLRKCKEVKVEKPTADAEAYVFTPN
MICAGGEKGMDSCKGDSGGAFAVQDPNDKTKFYAAGLVSWGPQCGTYGLYTRVKNYVDWI
MKTMQENSTPRED (SEQ ID NO:9)

FIG.14

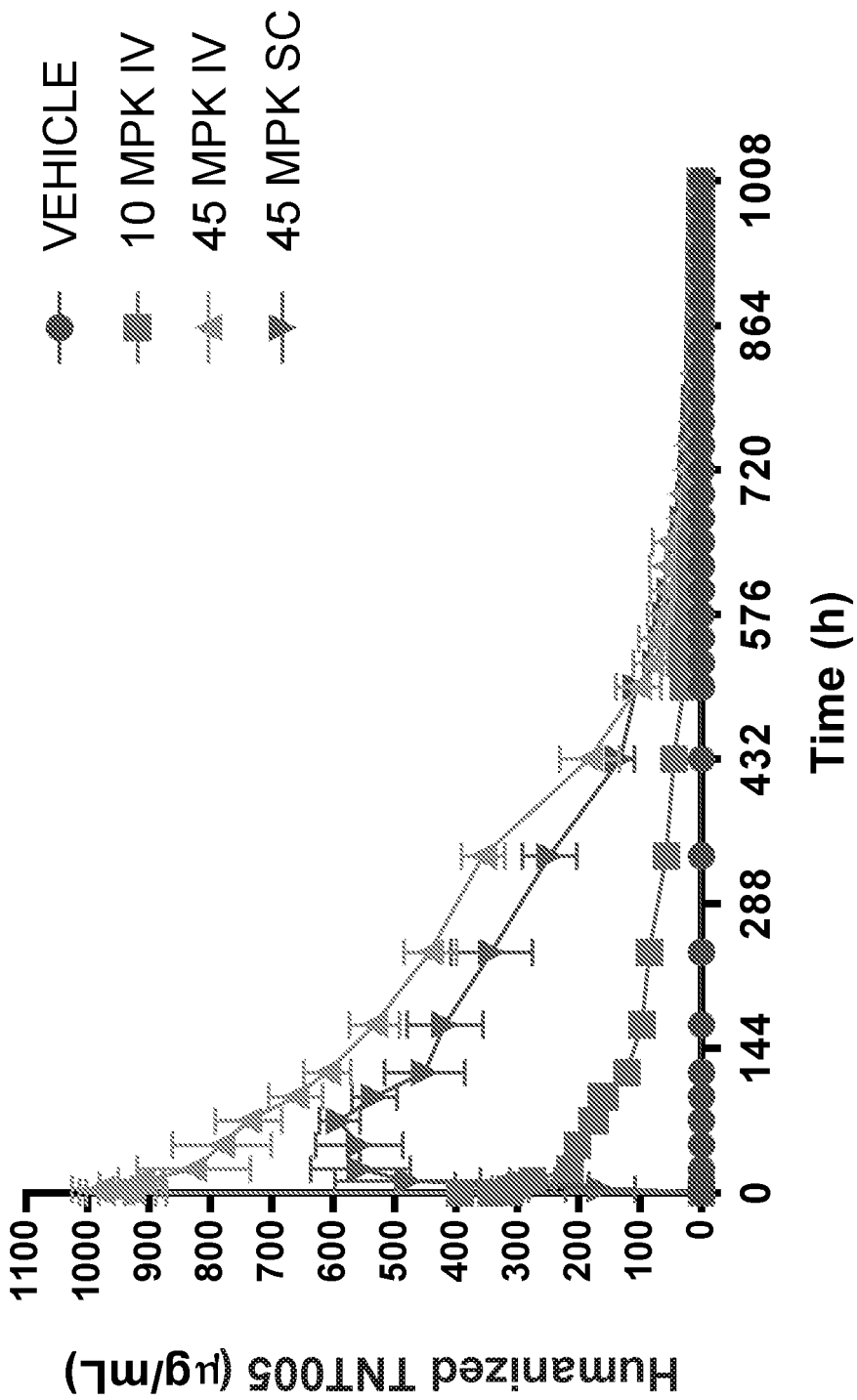

VEHICLE
10 MPK IV
45 MPK IV
45 MPK SC
Humanized TNT005 (µg/mL)
1100
1000
900
800
700
600
500
400
300
200
100
0
0
144
288
432
576
720
864
1008
Time (h)

FIG. 15

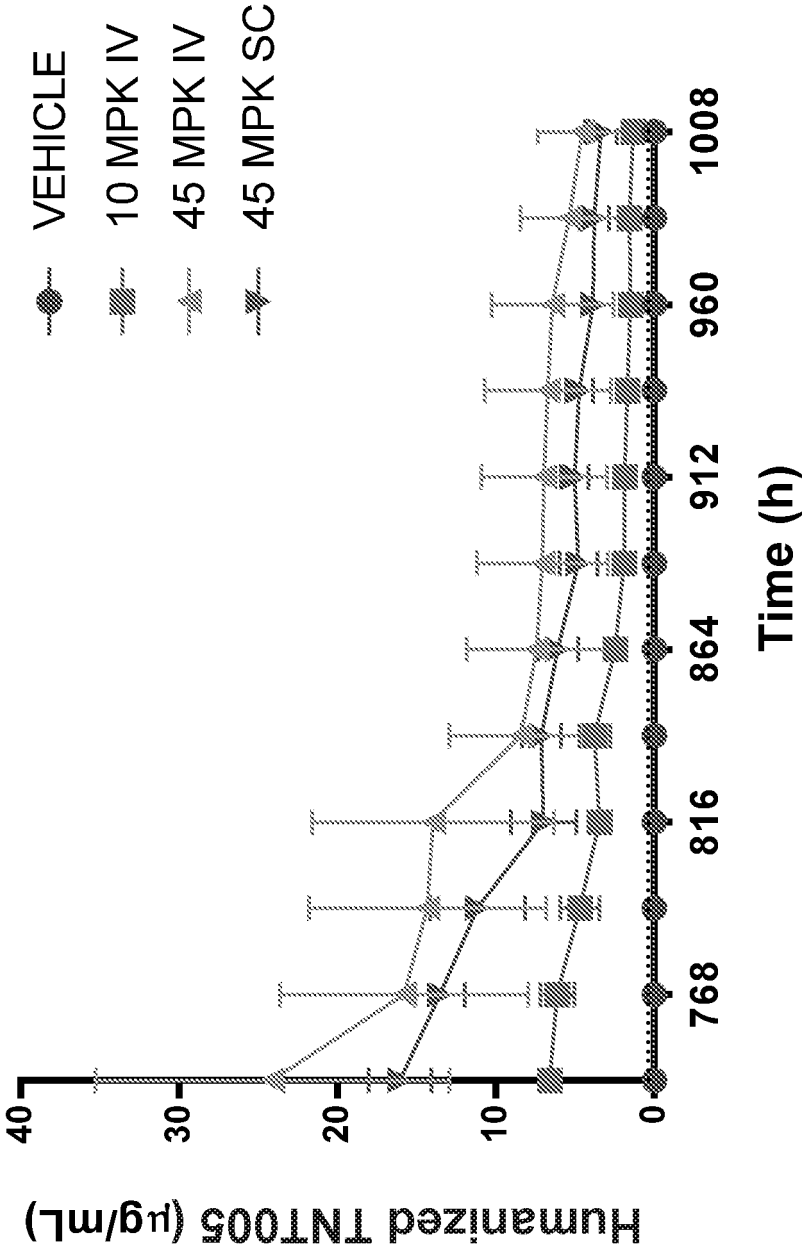

VEHICLE
10 MPK IV
45 MPK IV
45 MPK SC
Humanized TNT005 (μg/mL)
40
30
20
10
0
768
816
864
912
960
1008
Time (h)

FIG. 16

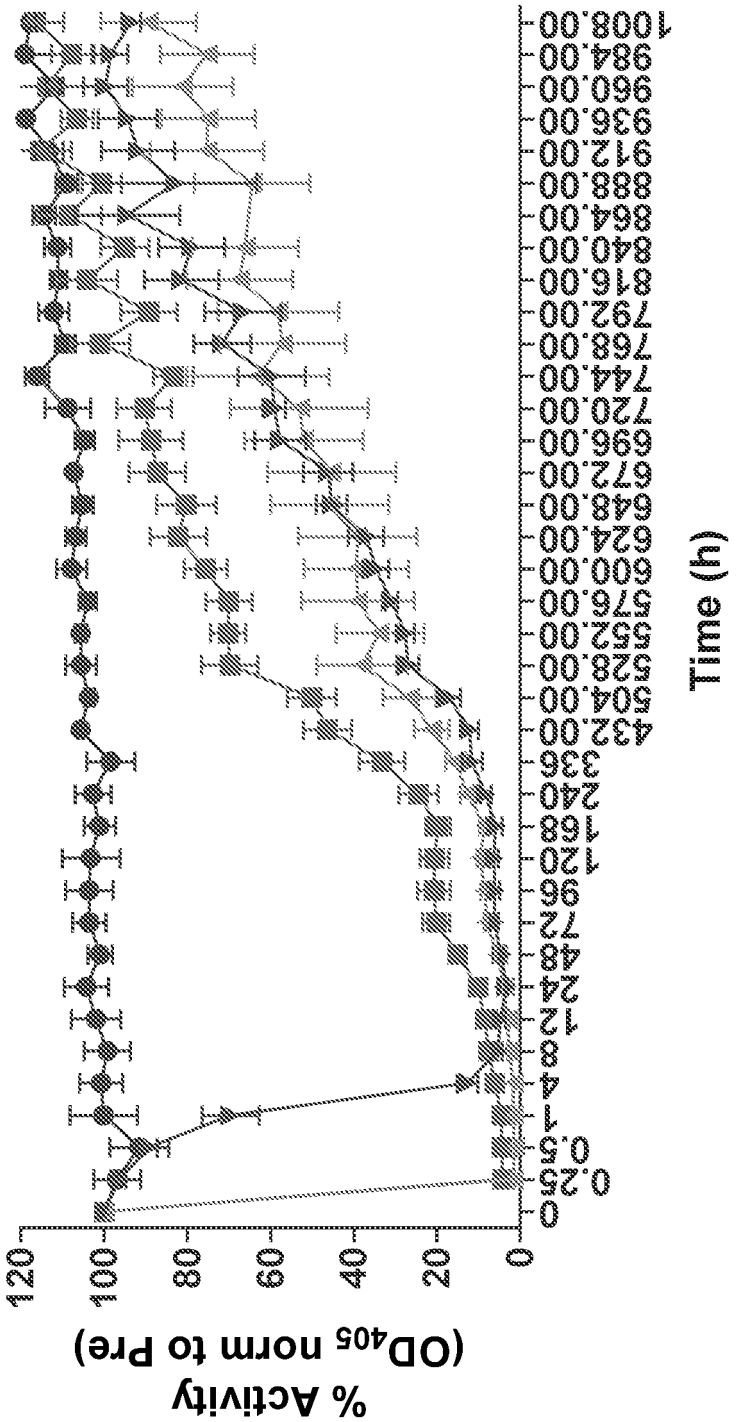
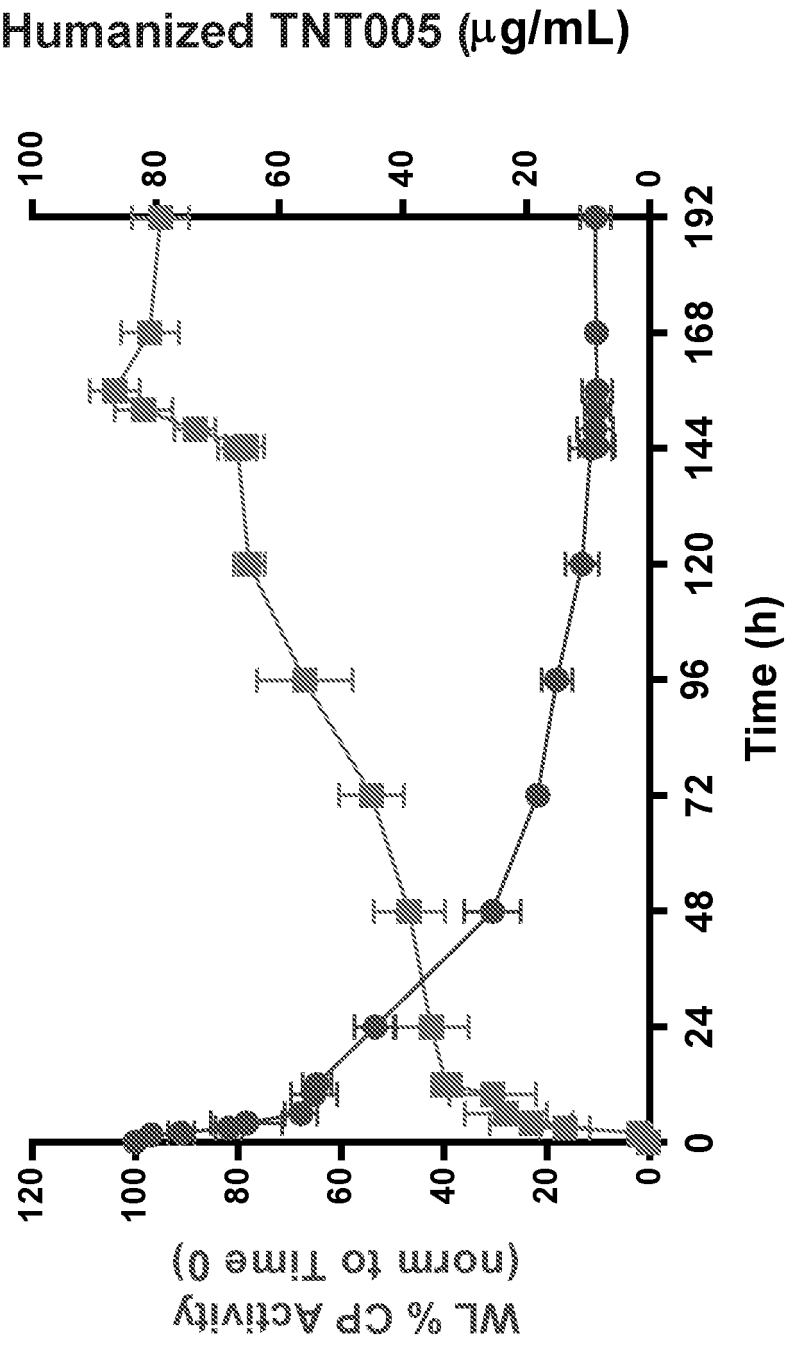

VEHICLE
10 MPK IV
45 MPK IV
45 MPK SC
% Activity
(OD405 norm to Pre)
120
100
80
60
40
20
0
0
0.25
0.5
1
4
8
12
24
48
72
96
120
168
240
336
432.00
504.00
528.00
552.00
576.00
600.00
624.00
648.00
672.00
696.00
720.00
744.00
768.00
792.00
816.00
840.00
864.00
888.00
912.00
936.00
960.00
984.00
1008.00
Time (h)

FIG. 17


Humanized TNT005 (μg/mL)
WL % CP Activity
(norm to Time 0)
120
100
80
60
40
20
0
0
24
48
72
96
120
144
168
192
Time (h)