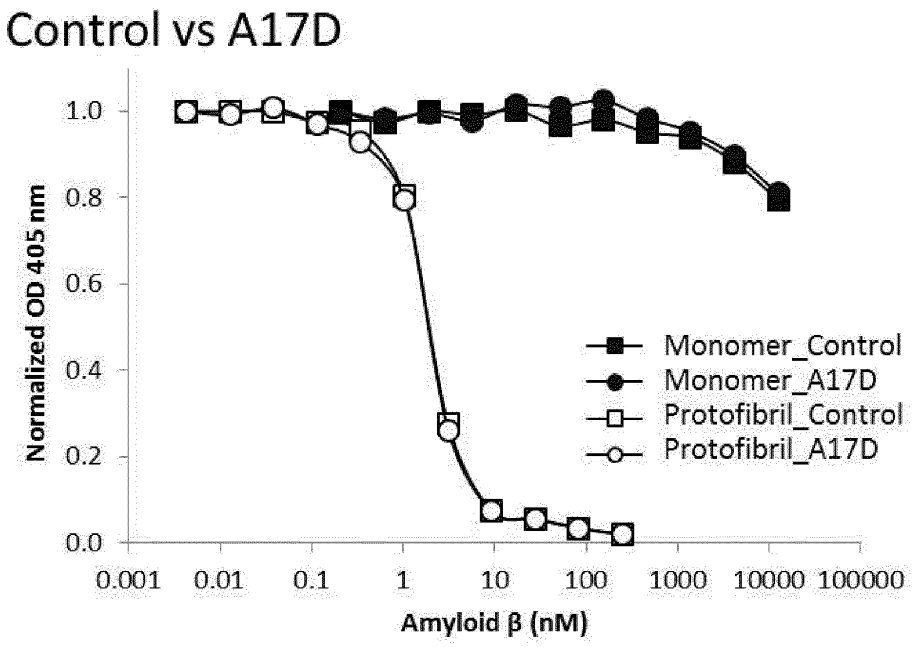
**Figure 1**


Control vs A17D
Normalized OD 405 nm
1.0
0.8
0.6
0.4
0.2
0.0
0.001
0.01
0.1
1
10
100
1000
10000
100000
Amyloid β (nM)
Monomer_Control
Monomer_A17D
Protofibril_Control
Protofibril_A17D

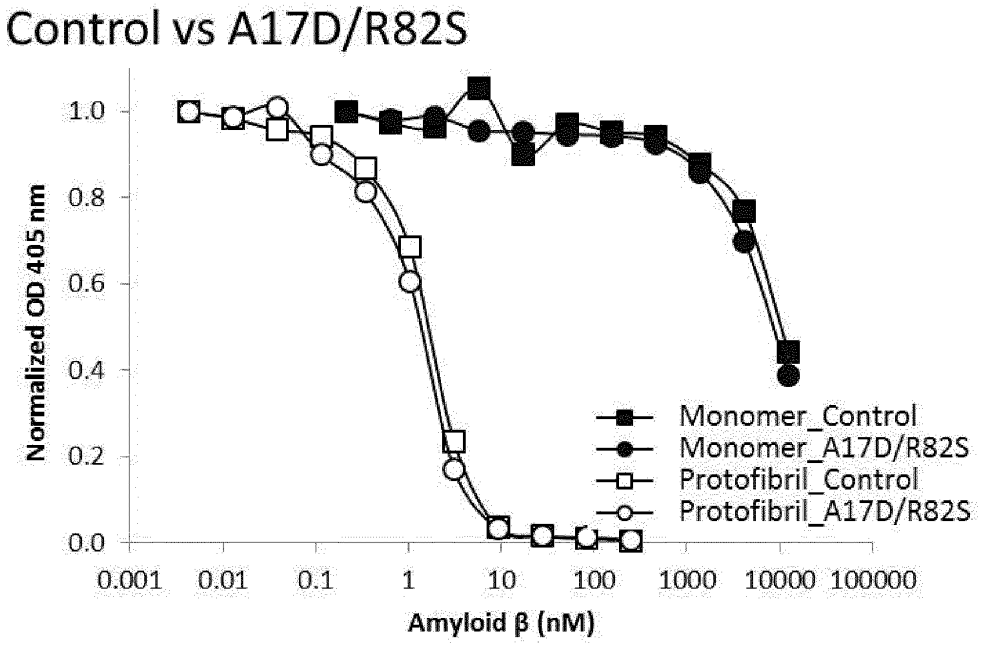

Control vs A17D/R82S
Normalized OD 405 nm
1.0
0.8
0.6
0.4
0.2
0.0
0.001
0.01
0.1
1
10
100
1000
10000
100000
Amyloid β (nM)
Monomer_Control
Monomer_A17D/R82S
Protofibril_Control
Protofibril_A17D/R82S

**Figure 1 (continued)**

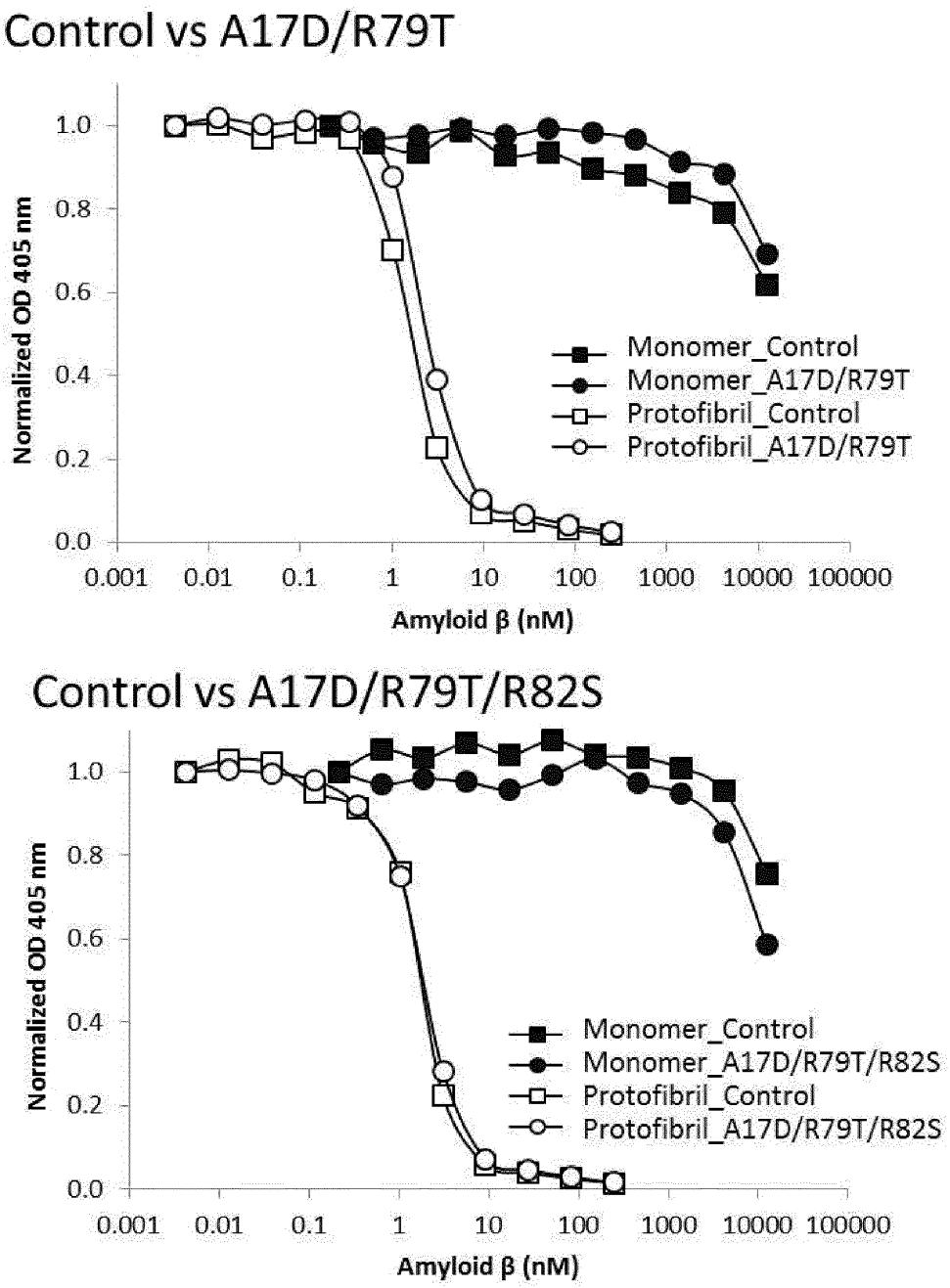


Figure 2

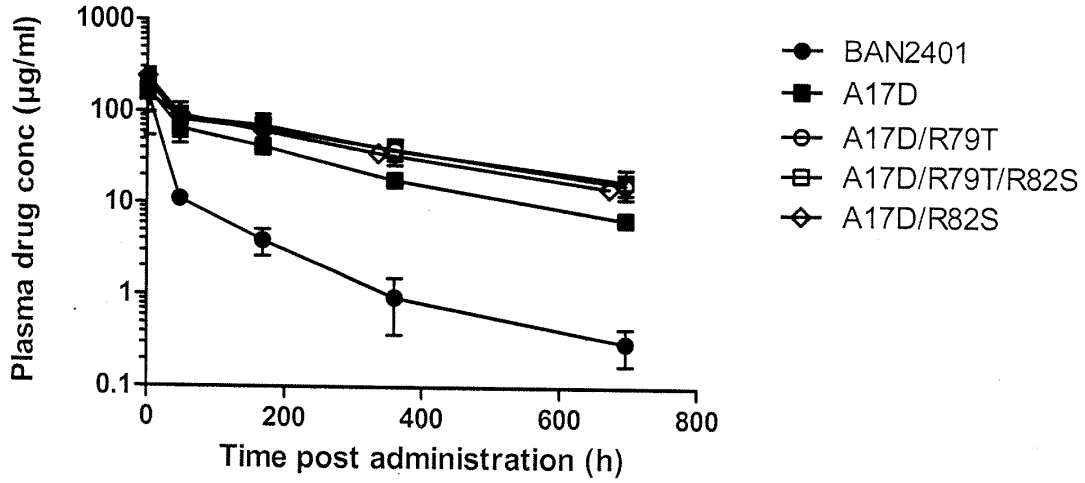



Figure 3

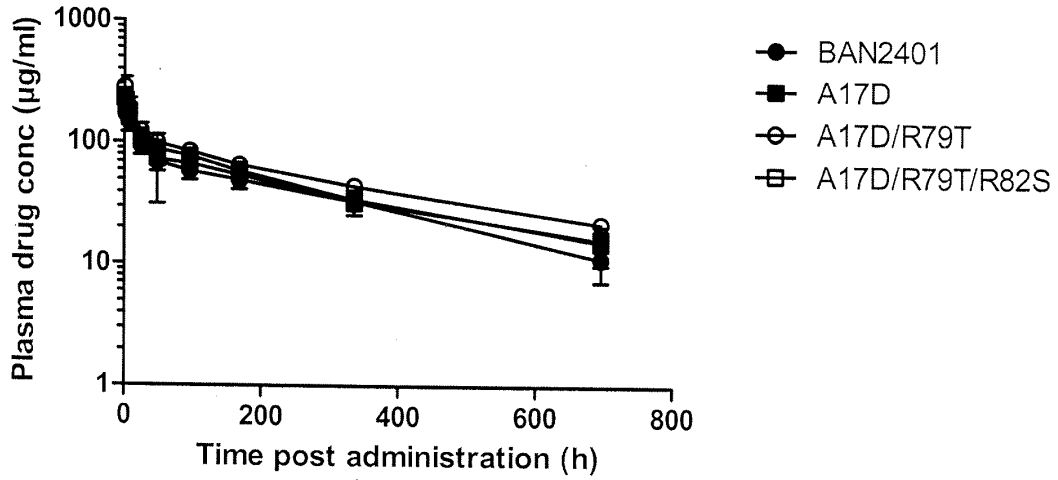


**Figure 4**

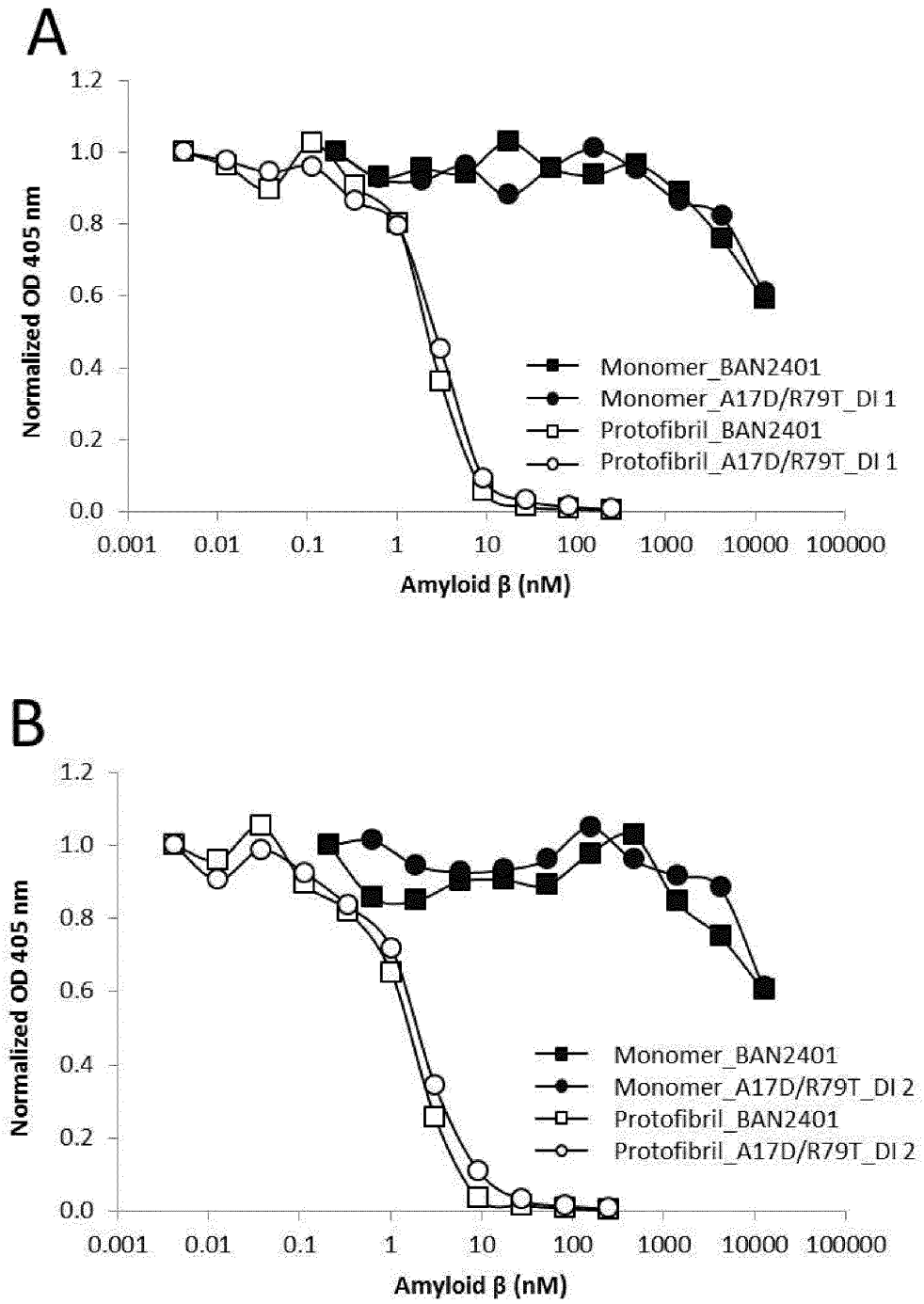
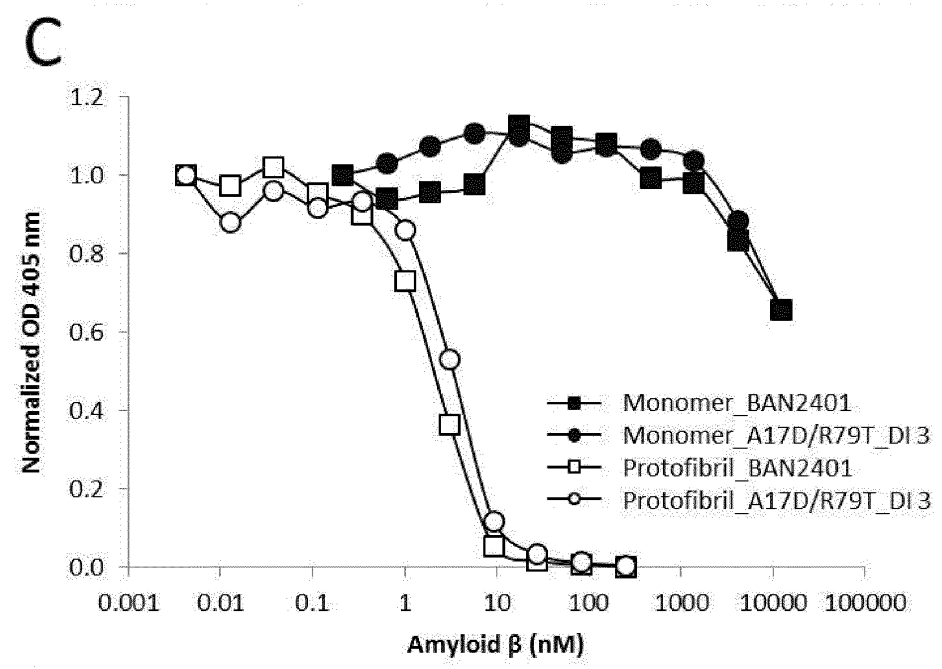

A
Normalized OD 405 nm
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0.001
0.01
0.1
1
10
100
1000
10000
100000
Amyloid β (nM)
Monomer_BAN2401
Monomer_A17D/R79T_DI 1
Protofibril_BAN2401
Protofibril_A17D/R79T_DI 1
B
Normalized OD 405 nm
Amyloid β (nM)
Monomer_BAN2401
Monomer_A17D/R79T_DI 2
Protofibril_BAN2401
Protofibril_A17D/R79T_DI 2

**Figure 4 (continued)**



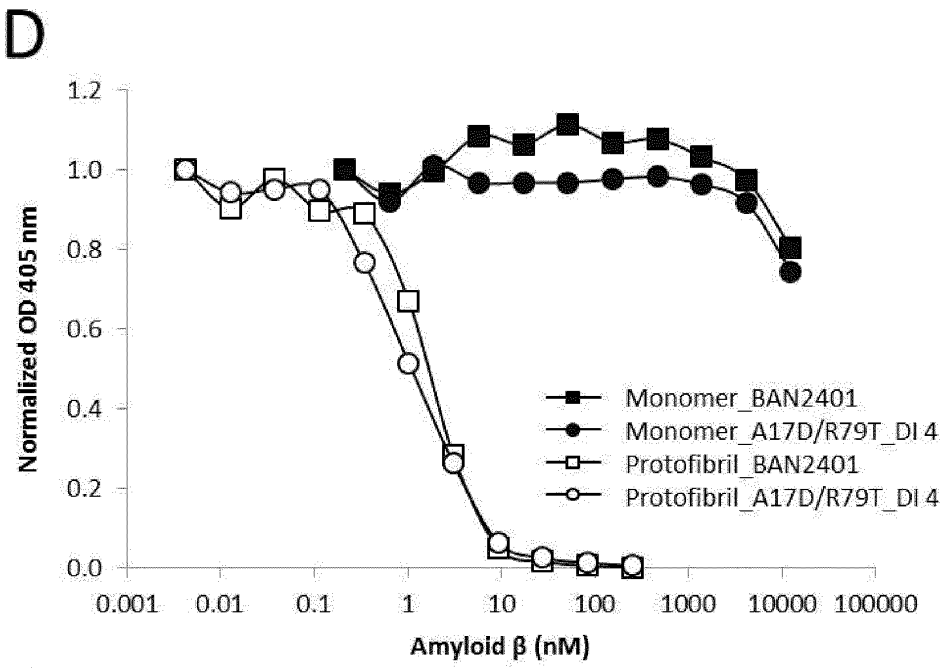



**Figure 4 (continued)**

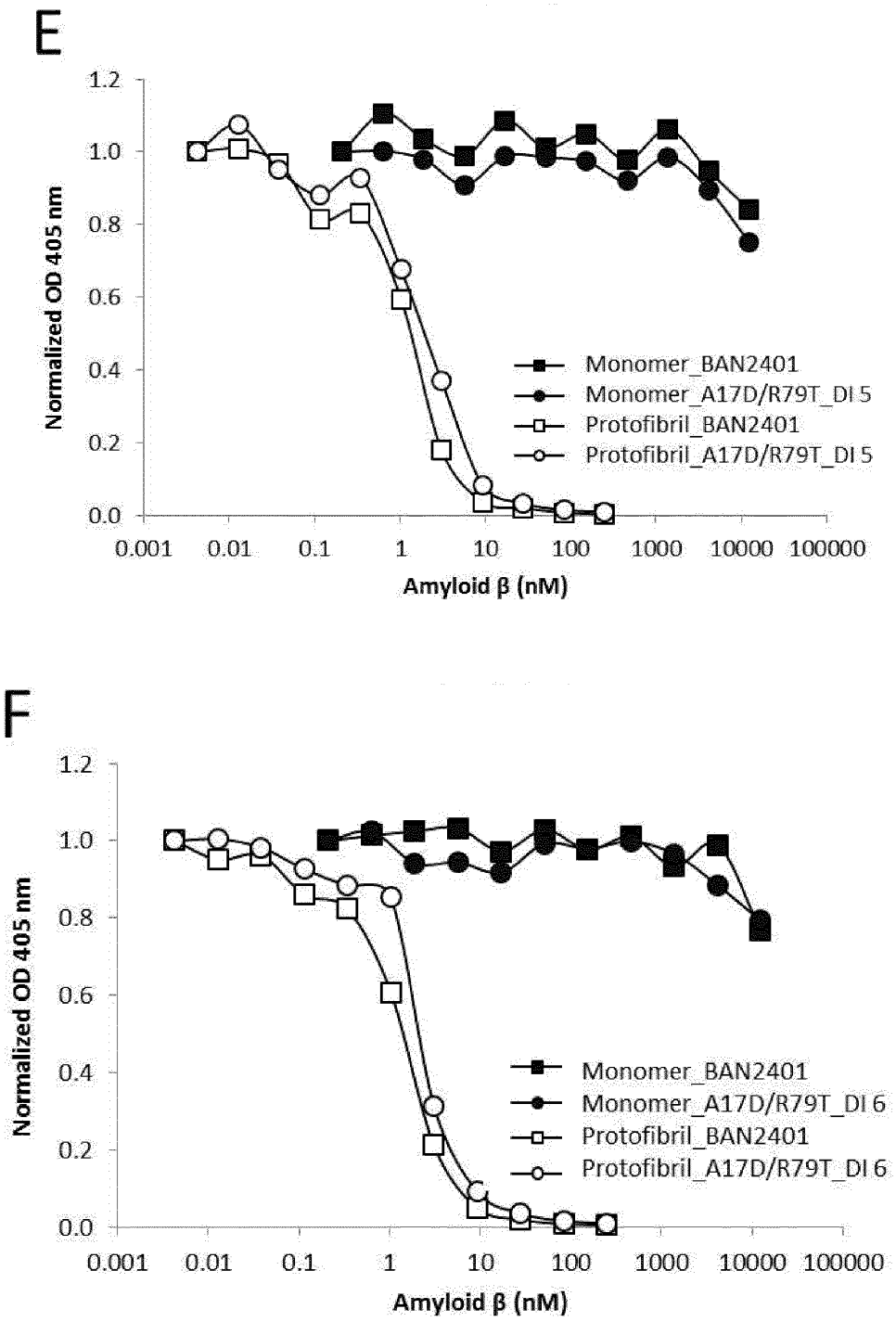
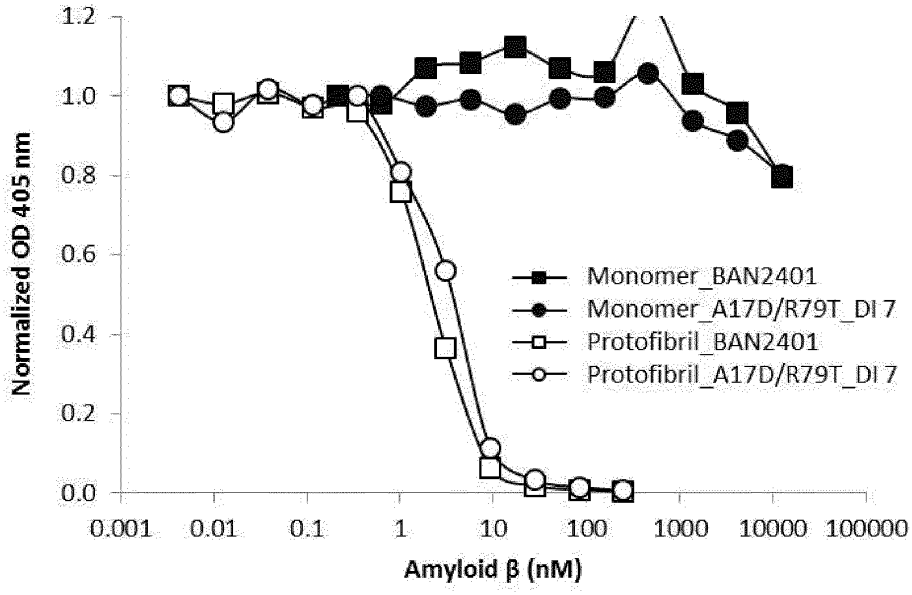


**Figure 4 (continued)**

G




H

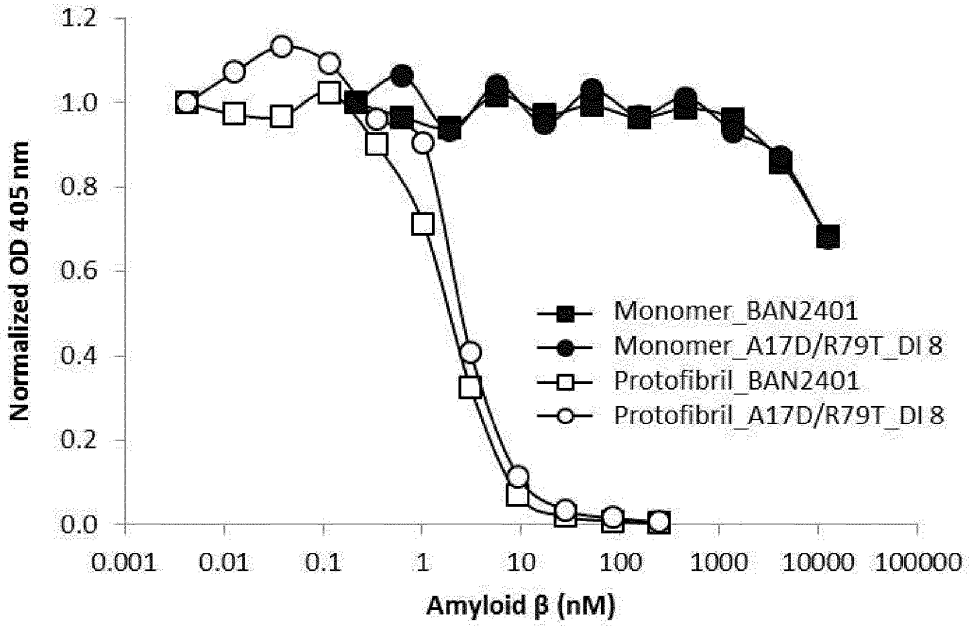


Figure 5

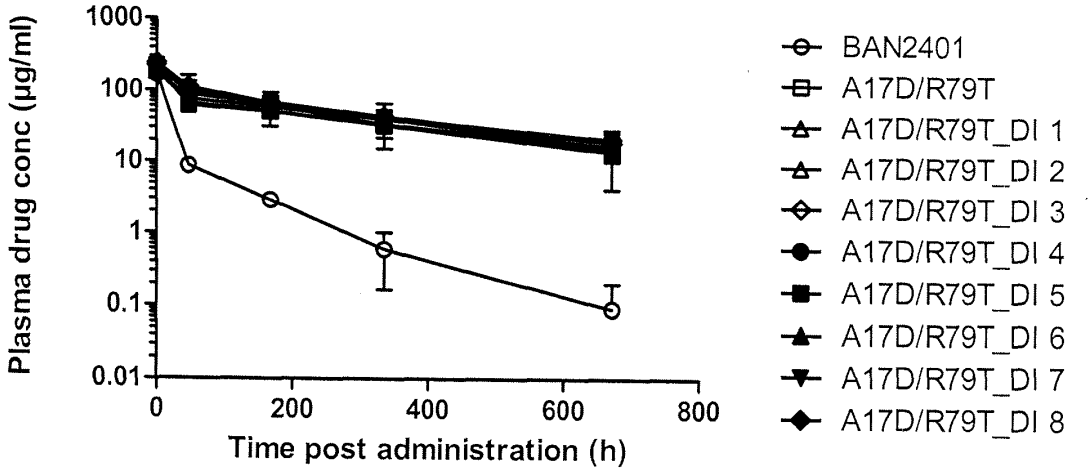
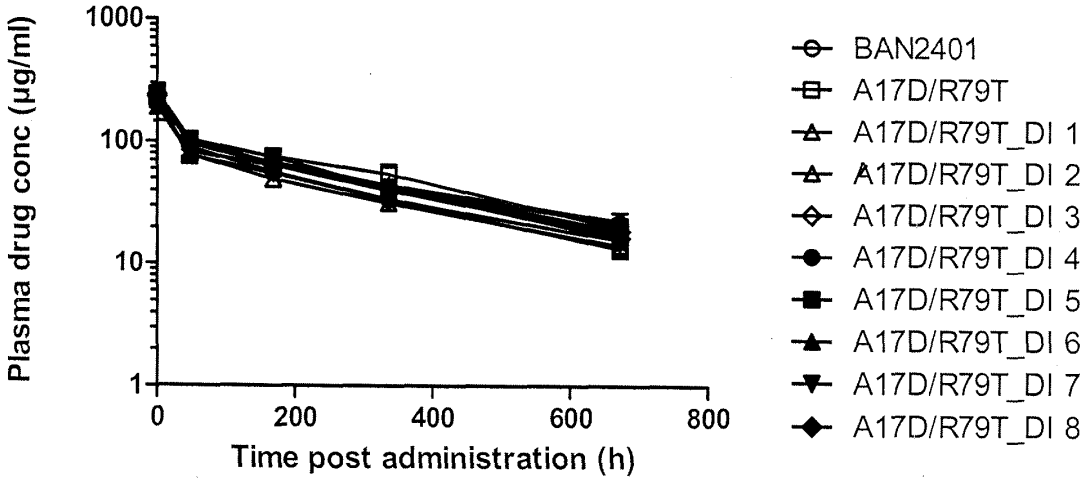



Figure 6



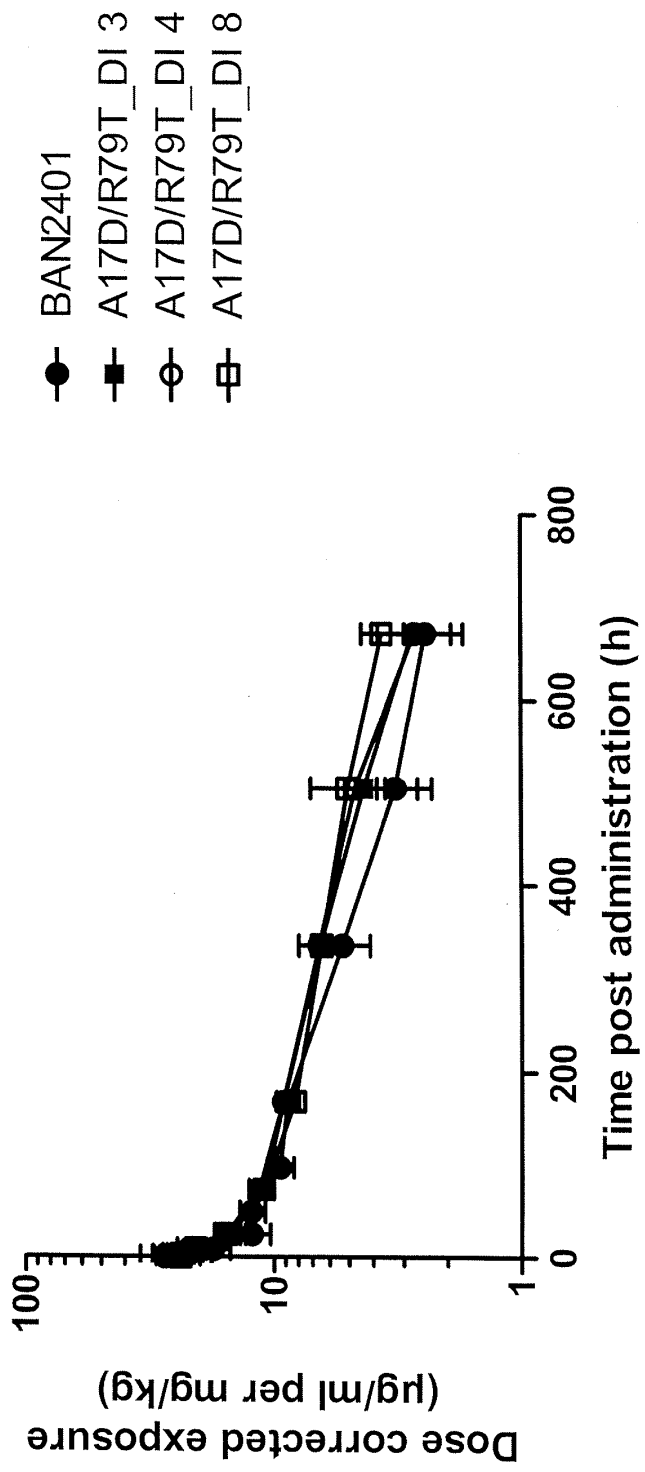

BAN2401
A17D/R79T_DI 3
A17D/R79T_DI 4
A17D/R79T_DI 8
Dose corrected exposure
(µg/ml per mg/kg)
100
10
1
0
200
400
600
800
Time post administration (h)

Figure 7

## Figure 8

Amino acid sequences

SEQ ID NO 1: SFGMH
SEQ ID NO 2: YISSGSSTIY YGDTVKG
SEQ ID NO 3: EGGYYYGRSY YTMDY
SEQ ID NO 4: RSSQSIVHSN GNTYLE
SEQ ID NO 5: KVSNRFS
SEQ ID NO 6: FQGSHVPPT
SEQ ID NO 7: DVVMTQSPLS LPVTPGAPAS ISCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLRI SRVEAEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 8: DVVMTQSPLS LP**Y**$_1$TPG**X**$_1$PAS **Y**$_2$SCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTL**X**$_2$I **Y**$_3$**X**$_3$V**Y**$_4$AEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 9: DVVMTQSPLS LPVTPGDPAS VSCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLTI QRVEAEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 10: DVVMTQSPLS LPVTPGDPAS VSCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLTI SRVDAEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 11: DVVMTQSPLS LPATPGDPAS ISCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLTI QRVEAEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 12: DVVMTQSPLS LPATPGDPAS ISCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLTI SRVDAEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 13: EVQLVESGGG LVQPGGSLRL SCSASGFTFS SFGMHWVRQA PGKGLEWVAY ISSGSSTIYY GDTVKGRFTI SRDNAKNSLF LQMSSLRAED TAVYYCAREG GYYYGRSYYT MDYWGQGTTV TVSS
SEQ ID NO 14: EVQLVESGGG LVQPGGSLRL SCSASGFTFS SFGMHW**Z**$_1$**Z**$_2$Q**Z**$_3$ PGKGLEWVAY ISSGSSTIYY GDTVKGRFTI SRDNAKNSLF LQMSSLRAED TAVYYCAREG GYYYGRSYYT MDYWGQGTTV TVSS
SEQ ID NO 15: EVQLVESGGG LVQPGGSLRL SCSASGFTFS SFGMHWVRQN PGKGLEWVAY ISSGSSTIYY GDTVKGRFTI SRDNAKNSLF LQMSSLRAED TAVYYCAREG GYYYGRSYYT MDYWGQGTTV TVSS
SEQ ID NO 16: EVQLVESGGG LVQPGGSLRL SCSASGFTFS SFGMHWVRQT PGKGLEWVAY ISSGSSTIYY GDTVKGRFTI SRDNAKNSLF LQMSSLRAED TAVYYCAREG GYYYGRSYYT MDYWGQGTTV TVSS
SEQ ID NO 17: EVQLVESGGG LVQPGGSLRL SCSASGFTFS SFGMHWVQQA PGKGLEWVAY ISSGSSTIYY GDTVKGRFTI SRDNAKNSLF LQMSSLRAED TAVYYCAREG GYYYGRSYYT MDYWGQGTTV TVSS
SEQ ID NO 18: EVQLVESGGG LVQPGGSLRL SCSASGFTFS SFGMHWIRQA PGKGLEWVAY ISSGSSTIYY GDTVKGRFTI SRDNAKNSLF LQMSSLRAED TAVYYCAREG GYYYGRSYYT MDYWGQGTTV TVSS
SEQ ID NO 19: DVVMTQSPLS LPVTPGDPAS ISCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLRI SRVEAEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 20: DVVMTQSPLS LPVTPGDPAS ISCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLTI SRVEAEDVGI YYCFQGSHVP PTFGPGTKLE IK

## Figure 8 continued

SEQ ID NO 21: DVVMTQSPLS LPVTPGDPAS ISCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLTI SSVEAEDVGI YYCFQGSHVP PTFGPGTKLE IK
SEQ ID NO 22: DVVMTQSPLS LPVTPGDPAS ISCRSSQSIV HSNGNTYLEW YLQKPGQSPK LLIYKVSNRF SGVPDRFSGS GSGTDFTLRI SSVEAEDVGI YYCFQGSHVP PTFGPGTKLE IK

SEQ ID NO 23: ASTKGPSVFP LAPSSKSTSG GTAALGCLVK DYFPEPVTVS WNSGALTSGV HTFPAVLQSS GLYSLSSVVT VPSSSLGTQT YICNVNHKPS NTKVDKRVEP
KSCDKTHTCP PCPAPELLGG PSVFLFPPKP KDTLMISRTP EVTCVVVDVS HEDPEVKFNW YVDGVEVHNA KTKPREEQYN STYRVVSVLT VLHQDWLNGK
EYKCKVSNKA LPAPIEKTIS KAKGQPREPQ VYTLPPSREE MTKNQVSLTC LVKGFYPSDI AVEWESNGQP ENNYKTTPPV LDSDGSFFLY SKLTVDKSRW
QQGNVFSCSV MHEALHNHYT QKSLSLSPGK

SEQ ID NO 24: RTVAAPSVFI FPPSDEQLKS GTASVVCLLN NFYPREAKVQ WKVDNALQSG NSQESVTEQD SKDSTYSLSS TLTLSKADYE KHKVYACEVT HQGLSSPVTK
SFNRGEC

**Figure 9**

| Kabat number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N-terminal numbering | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 |
| BAN2401 | D | V | V | M | T | Q | S | P | L | S | L | P | V | T | P | G | A | P | A | S | I | S | C | R | S | S | Q | S | I | V | H | S | N | G | N | T | Y | L | E | W | Y | L | Q | K | P | G | Q | S | P | K | L | L | I | Y | K | V | S | N | R |
| Abs according to the invention | D | V | V | M | T | Q | S | P | L | S | L | P | Y1 | T | P | G | X1 | P | A | S | Y2 | S | C | R | S | S | Q | S | I | V | H | S | N | G | N | T | Y | L | E | W | Y | L | Q | K | P | G | Q | S | P | K | L | L | I | Y | K | V | S | N | R |
| i) | D | V | V | M | T | Q | S | P | L | S | L | P | V | T | P | G | D | P | A | S | V | S | C | R | S | S | Q | S | I | V | H | S | N | G | N | T | Y | L | E | W | Y | L | Q | K | P | G | Q | S | P | K | L | L | I | Y | K | V | S | N | R |
| ii) | D | V | V | M | T | Q | S | P | L | S | L | P | V | T | P | G | D | P | A | S | V | S | C | R | S | S | Q | S | I | V | H | S | N | G | N | T | Y | L | E | W | Y | L | Q | K | P | G | Q | S | P | K | L | L | I | Y | K | V | S | N | R |
| iii) | D | V | V | M | T | Q | S | P | L | S | L | P | A | T | P | G | D | P | A | S | I | S | C | R | S | S | Q | S | I | V | H | S | N | G | N | T | Y | L | E | W | Y | L | Q | K | P | G | Q | S | P | K | L | L | I | Y | K | V | S | N | R |
| iv) | D | V | V | M | T | Q | S | P | L | S | L | P | A | T | P | G | D | P | A | S | I | S | C | R | S | S | Q | S | I | V | H | S | N | G | N | T | Y | L | E | W | Y | L | Q | K | P | G | Q | S | P | K | L | L | I | Y | K | V | S | N | R |

**Figure 9 continued**

| Kabat | | | | | | 6 | | | | | | | | | | 7 | | | | | | | | | | 8 | | | | | | | | | | 9 | | | | | | | | | | 10 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| number | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| N-terminal | 6 | | | | | | | | | | 7 | | | | | | | | | | 8 | | | | | | | | | | 9 | | | | | | | | | | 10 | | | | | | | | | | 11 | | |
| numbering | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 |
| BAN2401 | F | S | G | V | P | D | R | F | S | G | S | G | S | G | T | D | F | T | L | R | I | S | R | V | E | A | E | D | V | G | I | Y | Y | C | F | Q | G | S | H | V | P | P | T | F | G | P | G | T | K | L | E | I | K |
| Abs according to the invention | F | S | G | V | P | D | R | F | S | G | S | G | S | G | T | D | F | T | L | X2 | I | Y3 | X3 | V | Y4 | A | E | D | V | G | I | Y | Y | C | F | Q | G | S | H | V | P | P | T | F | G | P | G | T | K | L | E | I | K |
| i) | F | S | G | V | P | D | R | F | S | G | S | G | S | G | T | D | F | T | L | T | I | Q | R | V | E | A | E | D | V | G | I | Y | Y | C | F | Q | G | S | H | V | P | P | T | F | G | P | G | T | K | L | E | I | K |
| ii) | F | S | G | V | P | D | R | F | S | G | S | G | S | G | T | D | F | T | L | T | I | S | R | V | D | A | E | D | V | G | I | Y | Y | C | F | Q | G | S | H | V | P | P | T | F | G | P | G | T | K | L | E | I | K |
| iii) | F | S | G | V | P | D | R | F | S | G | S | G | S | G | T | D | F | T | L | T | I | Q | R | V | E | A | E | D | V | G | I | Y | Y | C | F | Q | G | S | H | V | P | P | T | F | G | P | G | T | K | L | E | I | K |
| iv) | F | S | G | V | P | D | R | F | S | G | S | G | S | G | T | D | F | T | L | T | I | S | R | V | D | A | E | D | V | G | I | Y | Y | C | F | Q | G | S | H | V | P | P | T | F | G | P | G | T | K | L | E | I | K |

**Figure 10**

| Kabat | | | | | | | | | | 1 | | | | | | | | | 2 | | | | | | | | | 3 | | | | | | | | | 4 | | | | | | | | | 5 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | A | 3 | 4 | 5 | 6 | 7 | 8 |
| N-terminal | | | | | | | | | | 1 | | | | | | | | | 2 | | | | | | | | | 3 | | | | | | | | | 4 | | | | | | | | | 5 | | | | | | | |
| numbering | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| BAN2401 | E | V | Q | L | V | E | S | G | G | G | L | V | Q | P | G | G | S | L | R | L | S | C | S | A | S | G | F | T | F | S | S | F | G | M | H | W | V | R | Q | A | P | G | K | G | L | E | W | V | A | Y | I | S | S | G | S | S | T | I | Y |
| Abs according to the invention | E | V | Q | L | V | E | S | G | G | G | L | V | Q | P | G | G | S | L | R | L | S | C | S | A | S | G | F | T | F | S | S | F | G | M | H | W | Z1 | Z2 | Q | Z3 | P | G | K | G | L | E | W | V | A | Y | I | S | S | G | S | S | T | I | Y |
| i) | E | V | Q | L | V | E | S | G | G | G | L | V | Q | P | G | G | S | L | R | L | S | C | S | A | S | G | F | T | F | S | S | F | G | M | H | W | V | R | Q | N | P | G | K | G | L | E | W | V | A | Y | I | S | S | G | S | S | T | I | Y |
| ii) | E | V | Q | L | V | E | S | G | G | G | L | V | Q | P | G | G | S | L | R | L | S | C | S | A | S | G | F | T | F | S | S | F | G | M | H | W | V | R | Q | T | P | G | K | G | L | E | W | V | A | Y | I | S | S | G | S | S | T | I | Y |
| iii) | E | V | Q | L | V | E | S | G | G | G | L | V | Q | P | G | G | S | L | R | L | S | C | S | A | S | G | F | T | F | S | S | F | G | M | H | W | V | Q | Q | A | P | G | K | G | L | E | W | V | A | Y | I | S | S | G | S | S | T | I | Y |
| iv) | E | V | Q | L | V | E | S | G | G | G | L | V | Q | P | G | G | S | L | R | L | S | C | S | A | S | G | F | T | F | S | S | F | G | M | H | W | I | R | Q | A | P | G | K | G | L | E | W | V | A | Y | I | S | S | G | S | S | T | I | Y |

Figure 10 continued

| Kabat | | 6 | | | | | | | | | | 7 | | | | | | | | | | 8 | | | | | | | | | | | | | 9 | | | | | | | | | | 10 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| number | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | A | B | C | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | A | B | C | D | E | F | v | 1 | 2 | 3 | 4 | 5 |
| N-terminal | 6 | | | | | | | | | | 7 | | | | | | | | | | 8 | | | | | | | | | | 9 | | | | | | | | | | 10 | | | | | | | | | | 11 | | | | | | |
| numbering | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| BAN2401 | Y | G | D | T | V | K | G | R | F | T | I | S | R | D | N | A | K | N | S | L | F | L | Q | M | S | S | L | R | A | E | D | T | A | V | Y | Y | C | A | R | E | G | G | Y | Y | Y | G | R | S | Y | Y | T | M | D | Y | W | G | Q |
| Abs according to the invention | Y | G | D | T | V | K | G | R | F | T | I | S | R | D | N | A | K | N | S | L | F | L | Q | M | S | S | L | R | A | E | D | T | A | V | Y | Y | C | A | R | E | G | G | Y | Y | Y | G | R | S | Y | Y | T | M | D | Y | W | G | Q |
| i) | Y | G | D | T | V | K | G | R | F | T | I | S | R | D | N | A | K | N | S | L | F | L | Q | M | S | S | L | R | A | E | D | T | A | V | Y | Y | C | A | R | E | G | G | Y | Y | Y | G | R | S | Y | Y | T | M | D | Y | W | G | Q |
| ii) | Y | G | D | T | V | K | G | R | F | T | I | S | R | D | N | A | K | N | S | L | F | L | Q | M | S | S | L | R | A | E | D | T | A | V | Y | Y | C | A | R | E | G | G | Y | Y | Y | G | R | S | Y | Y | T | M | D | Y | W | G | Q |
| iii) | Y | G | D | T | V | K | G | R | F | T | I | S | R | D | N | A | K | N | S | L | F | L | Q | M | S | S | L | R | A | E | D | T | A | V | Y | Y | C | A | R | E | G | G | Y | Y | Y | G | R | S | Y | Y | T | M | D | Y | W | G | Q |
| iv) | Y | G | D | T | V | K | G | R | F | T | I | S | R | D | N | A | K | N | S | L | F | L | Q | M | S | S | L | R | A | E | D | T | A | V | Y | Y | C | A | R | E | G | G | Y | Y | Y | G | R | S | Y | Y | T | M | D | Y | W | G | Q |

**Figure 10 continued**

| Kabat number | 6 | 7 | 8 | 9 | 11 0 | 1 | 2 | 3 |
|---|---|---|---|---|---|---|---|---|
| N-terminal numbering | 7 | 8 | 9 | 12 0 | 1 | 2 | 3 | 4 |
| BAN2401 | G | T | T | V | T | V | S | S |
| Abs according to the invention | G | T | T | V | T | V | S | S |
| i) | G | T | T | V | T | V | S | S |
| ii) | G | T | T | V | T | V | S | S |
| iii) | G | T | T | V | T | V | S | S |
| iv) | G | T | T | V | T | V | S | S |

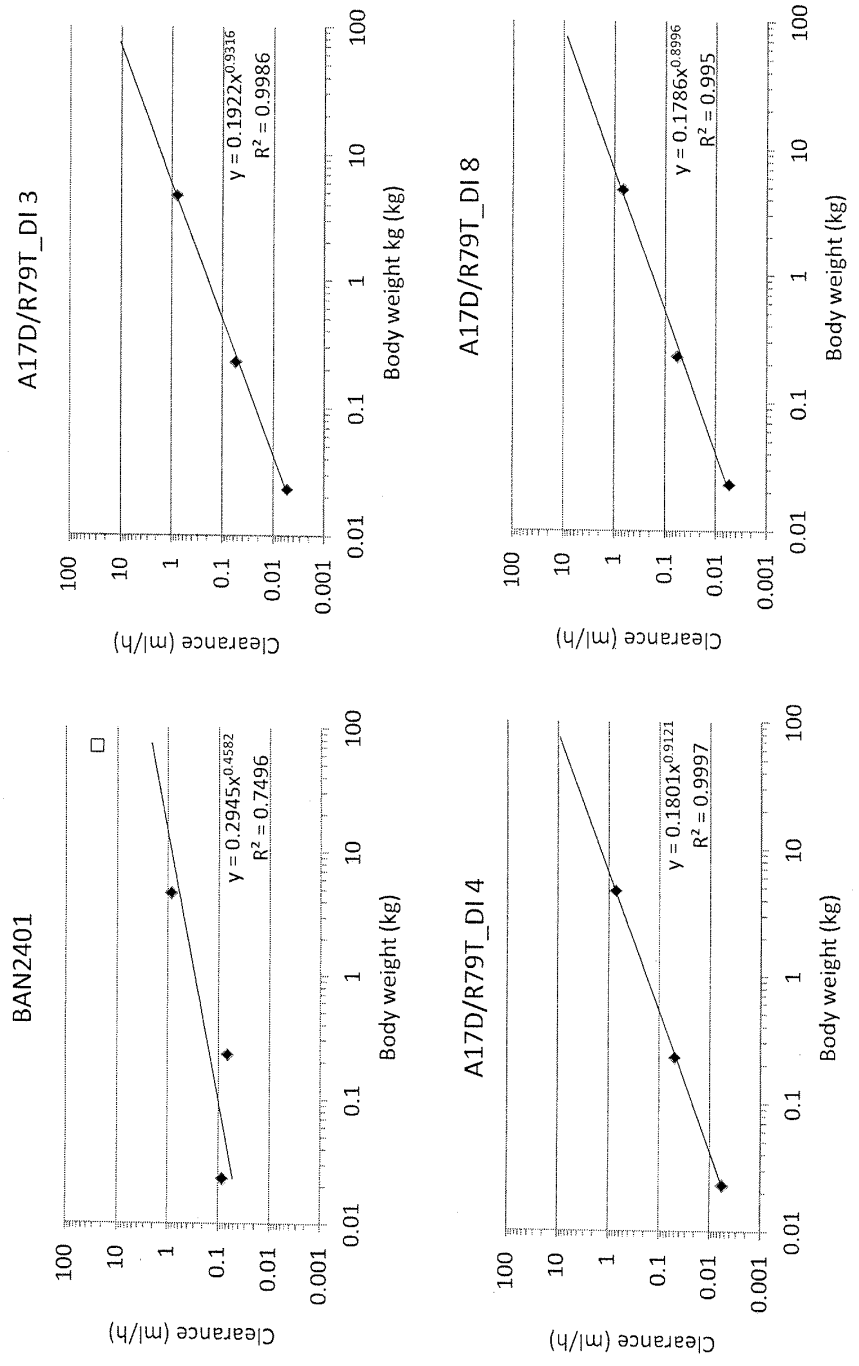

A17D/R79T_DI 3
y = 0.1922x^0.9316
R² = 0.9986
Clearance (ml/h)
Body weight kg (kg)
A17D/R79T_DI 8
y = 0.1786x^0.8996
R² = 0.995
Clearance (ml/h)
Body weight (kg)
BAN2401
y = 0.2945x^0.4582
R² = 0.7496
Clearance (ml/h)
Body weight (kg)
A17D/R79T_DI 4
y = 0.1801x^0.9121
R² = 0.9997
Clearance (ml/h)
Body weight (kg)

Figure 11