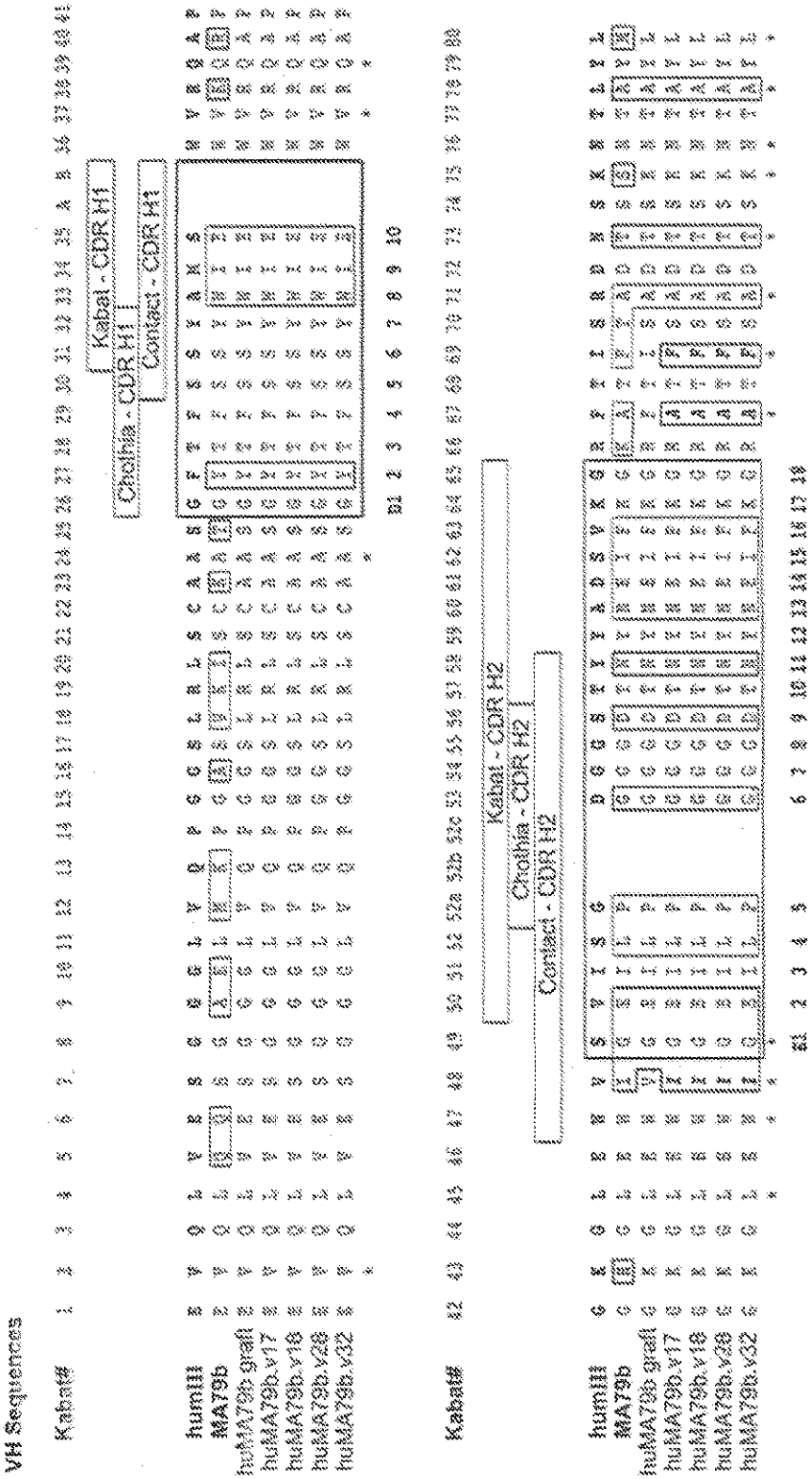

VH Sequences
Kabat - CDR H1
Chothia - CDR H1
Contact - CDR H1
Kabat - CDR H2
Chothia - CDR H2
Contact - CDR H2

FIG. 1A

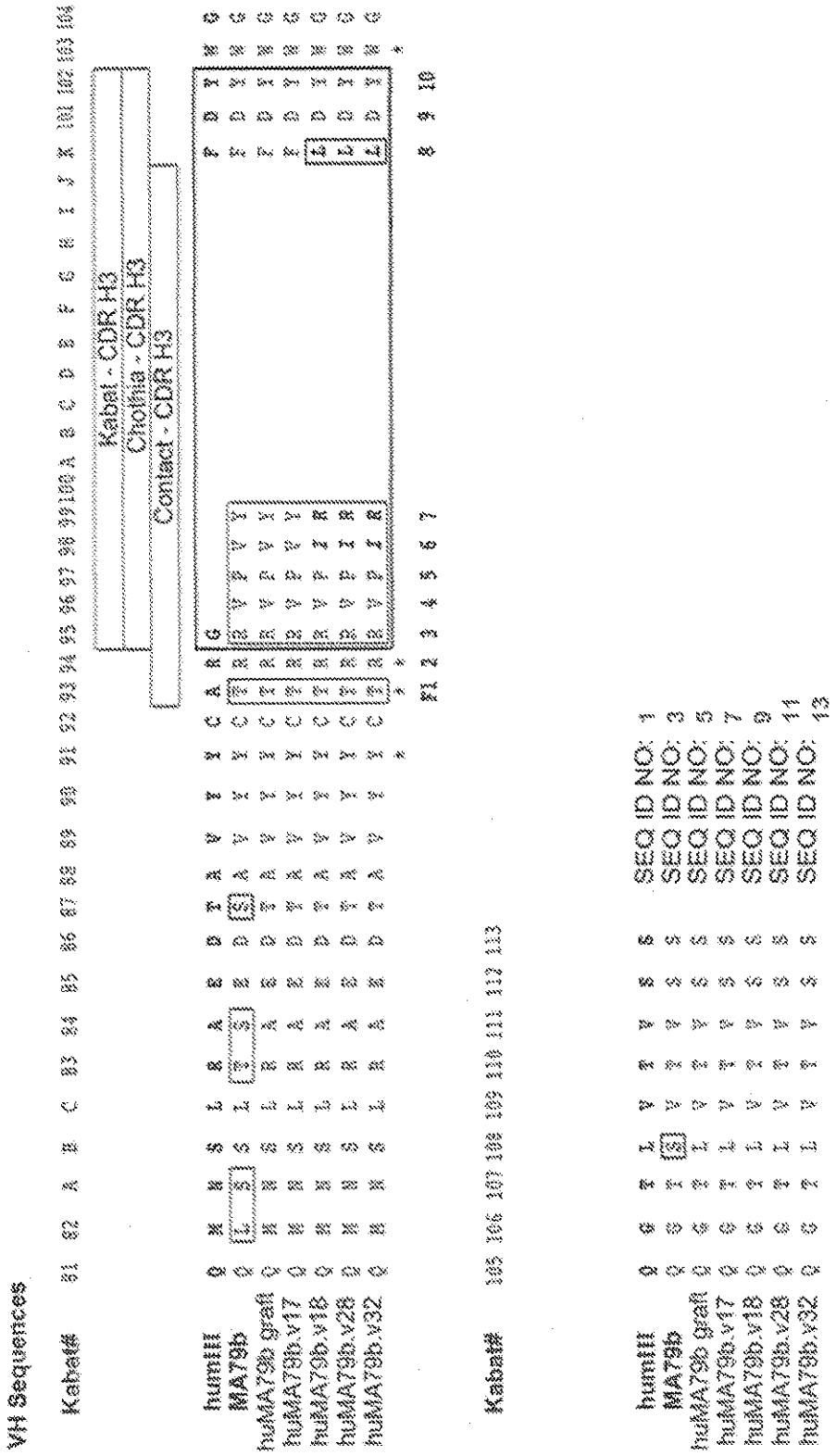

VH Sequences
Kabat - CDR H3
Chothia - CDR H3
Contact - CDR H3
humIII
MA79b
huMA79b graft
huMA79b.v17
huMA79b.v18
huMA79b.v28
huMA79b.v32
SEQ ID NO: 1
SEQ ID NO: 3
SEQ ID NO: 5
SEQ ID NO: 7
SEQ ID NO: 9
SEQ ID NO: 11
SEQ ID NO: 13

FIG. 1B

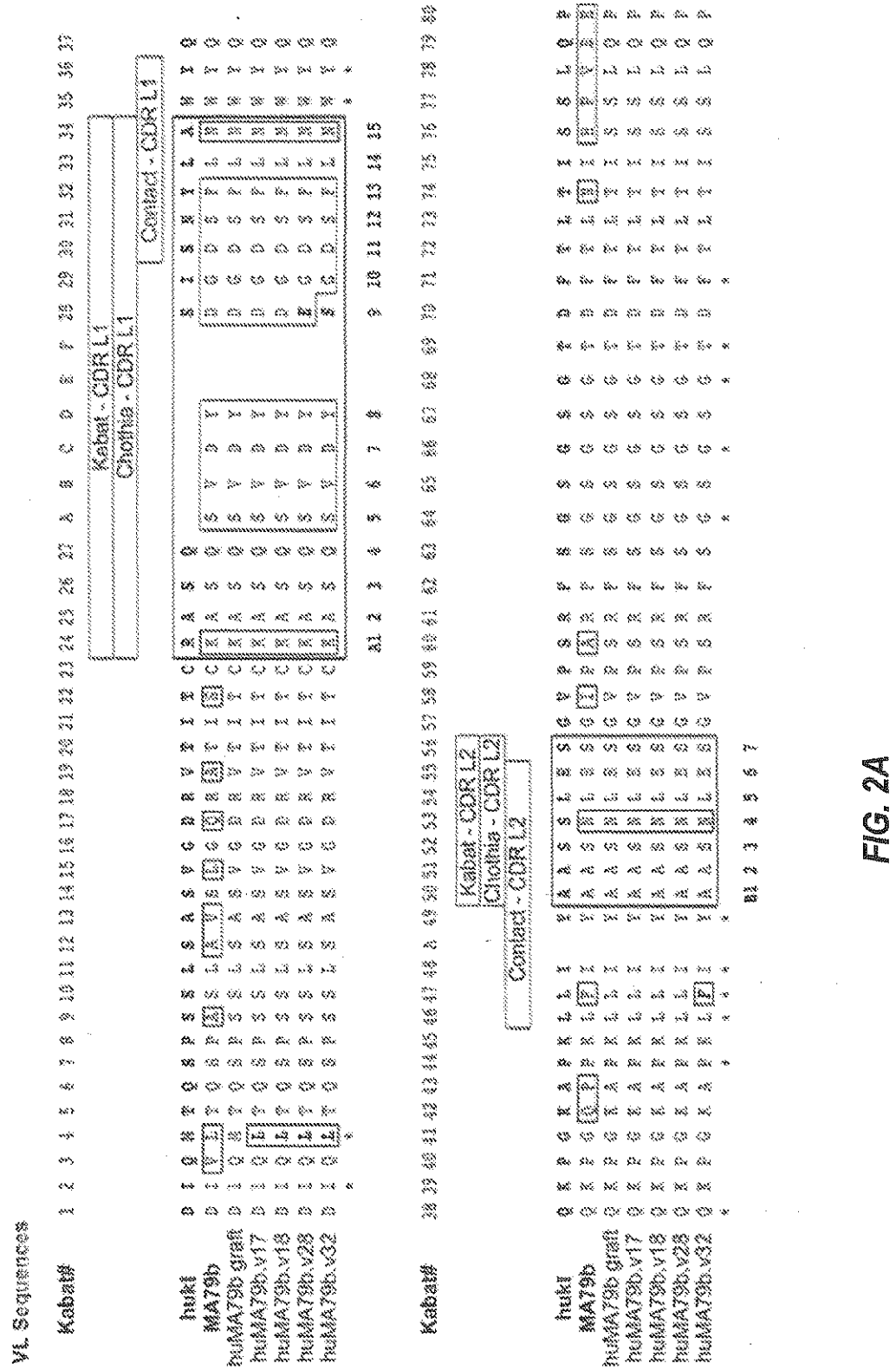

VL Sequences
Kabat - CDR L1
Chothia - CDR L1
Contact - CDR L1
Kabat - CDR L2
Chothia - CDR L2
Contact - CDR L2

FIG. 2A

VL Sequences

| Kabat# | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | A | B | C | D | E | F | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kabat - CDR L3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chothia - CDR L3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contact - CDR L3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| huKI | E | D | E | A | E | Y | Y | C | Q | Q | Y | K | S | L | P | | | | | | | W | T | F | G | Q | G | T | K | V | E | I | K | R | SEQ ID NO: 2 |
| MA79b | E | D | X | A | E | Y | Y | C | Q | Q | S | K | E | D | P | | | | | | | L | T | F | G | A | G | T | K | L | E | L | K | R | SEQ ID NO: 4 |
| huMA79b graft | E | D | P | A | T | Y | Y | C | Q | Q | S | K | E | D | P | | | | | | | L | T | F | G | Q | G | T | K | V | E | I | K | R | SEQ ID NO: 6 |
| huMA79b.v17 | E | D | P | A | T | Y | Y | C | Q | Q | S | K | E | D | P | | | | | | | L | T | F | G | Q | G | T | K | V | E | I | K | R | SEQ ID NO: 8 |
| huMA79b.v18 | E | D | P | A | T | Y | Y | C | Q | Q | S | K | E | D | P | | | | | | | L | T | F | G | Q | G | T | K | V | E | I | K | R | SEQ ID NO: 10 |
| huMA79b.v28 | E | D | P | A | T | Y | Y | C | Q | Q | S | K | E | D | P | | | | | | | L | T | F | G | Q | G | T | K | V | E | I | K | R | SEQ ID NO: 12 |
| huMA79b.v32 | E | D | P | A | T | Y | Y | C | Q | Q | S | K | E | D | P | | | | | | | L | T | F | G | Q | G | T | K | V | E | I | K | R | SEQ ID NO: 14 |
| | | | | | | | | | C1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | 8 | 9 | | | | | | | | | | | | |

FIG. 2B

**huMA79bv28 Light Chain**

DIQLTQSPSSLSASVGDRVTITCKASQSVDYEGDSFLNWYQQKPGKAPKLLIYAASNLESGVPSRFSG
SGSGTDFTLTISSLQPEDFATYYCQQSNEDPLTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASV
VCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQG
LSSPVTKSFNRGEC SEQ ID NO: 37

**huMA79bv28 Heavy Chain**

EVQLVESGGGLVQPGGSLRLSCAASGYTFSSYWIEWVRQAPGKGLEWIGEILPGGGDTNYNEIFKGRA
TFSADTSKNTAYLQMNSLRAEDTAVYYCTRRVPIRLDYWGQGTLVTVSSASTKGPSVFPLAPSSKSTS
GGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNH
KPSNTKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPE
VKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK
GQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYS
KLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPG SEQ ID NO: 38

FIG. 3

**Thio-huMA79b.v28-HC-A118C (HC)**

EVQLVESGGGLVQPGGSLRLSCAASGYTFSSYWIEWVRQAPGKGLEWIGEILPGGGDTNYNEIFKGRAT
FSADTSKNTAYLQMNSLRAEDTAVYYCTRRVPIRLDYWGQGTLVTVSSCSTKGPSVFPLAPSSKSTSGG
TAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPS
NTKVDKKVEPKSCDKTHT*CPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFN*
*WYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE*
*PQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDK*
*SRWQQGNVFSCSVMHEALHNHYTQKSLSLSPG* **SEQ ID NO: 39**

**Thio-huMA79b.v28-LC-V205C (LC)**

DIQLTQSPSSLSASVGDRVTITCKASQSVDYEGDSFLNWYQQKPGKAPKLLIYAASNLESGVPSRFSGSG
SGTDFTLTISSLQPEDFATYYCQQSNEDPLTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLL
NNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPCT
KSFNRGEC **SEQ ID NO: 54**

**Thio-huMA79b.v28-HC-S400C (HC)**

EVQLVESGGGLVQPGGSLRLSCAASGYTFSSYWIEWVRQAPGKGLEWIGEILPGGGDTNYNEIFKGRATF
SADTSKNTAYLQMNSLRAEDTAVYYCTRRVPIRLDYWGQGTLVTVSSASTKGPSVFPLAPSSKSTSGGTA
ALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTK
VDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVD
GVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYT
LPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDCDGSFFLYSKLTVDKSRWQQG
NVFSCSVMHEALHNHYTQKSLSLSPGK **SEQ ID NO: 55**

*FIG. 4*

Thio huMA79bv28 HC A118C-MC-val-cit-PAB-PBD ("huMA79bv28-PBD")

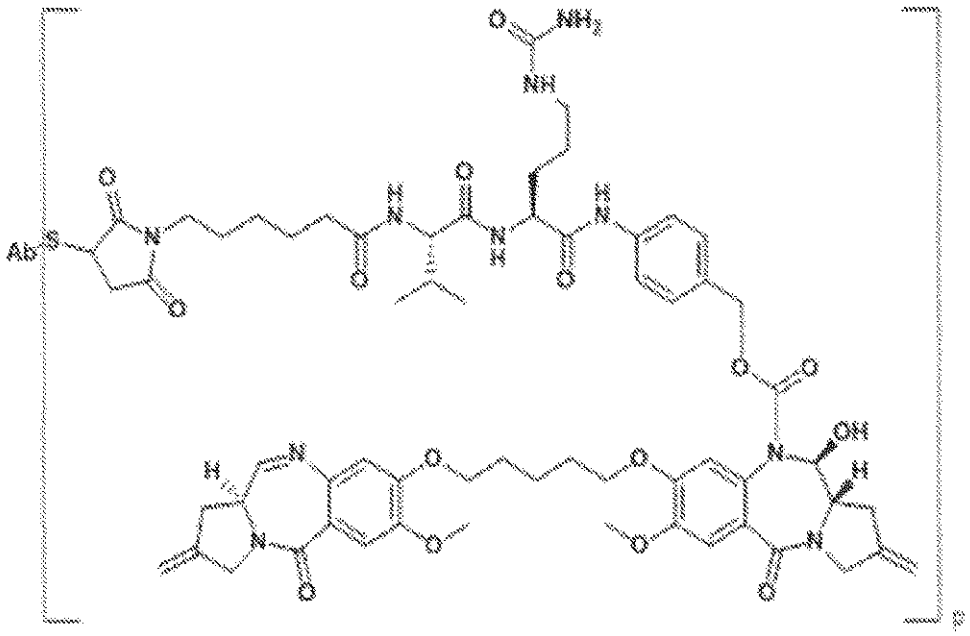


FIG. 5

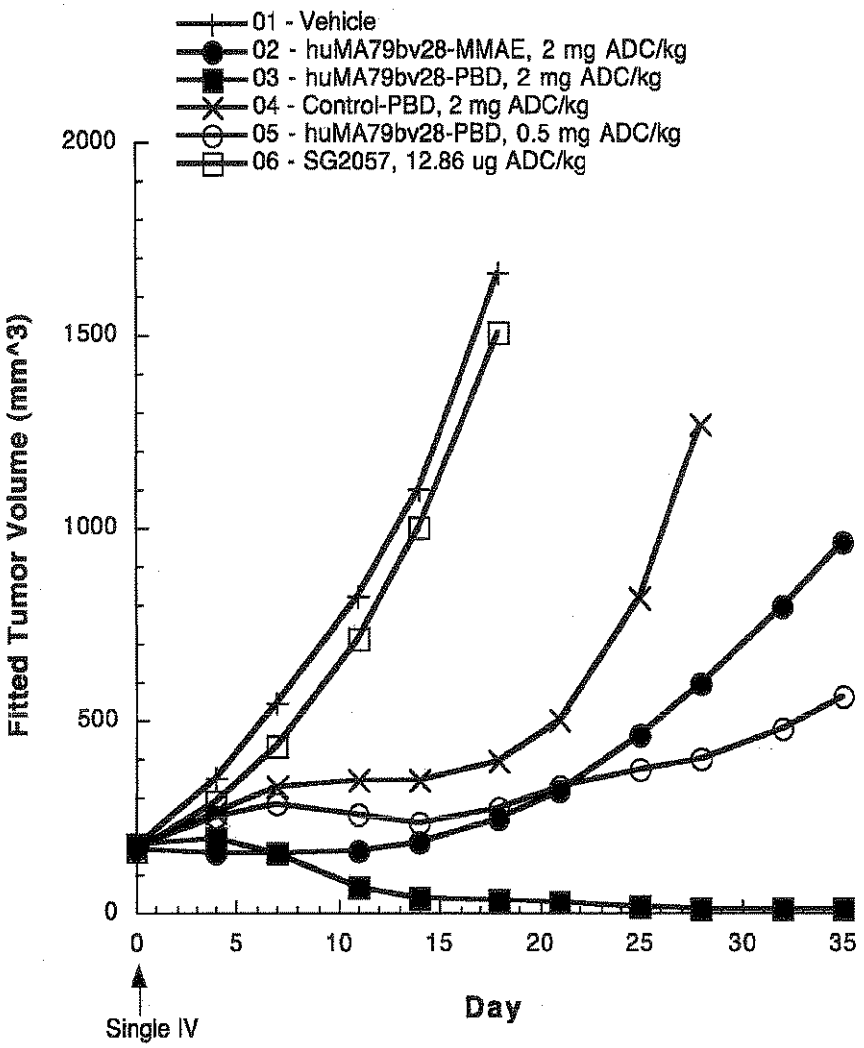

01 - Vehicle
02 - huMA79bv28-MMAE, 2 mg ADC/kg
03 - huMA79bv28-PBD, 2 mg ADC/kg
04 - Control-PBD, 2 mg ADC/kg
05 - huMA79bv28-PBD, 0.5 mg ADC/kg
06 - SG2057, 12.86 ug ADC/kg
Fitted Tumor Volume (mm^3)
2000
1500
1000
500
0
0
5
10
15
20
25
30
35
Day
Single IV

*FIG. 6*

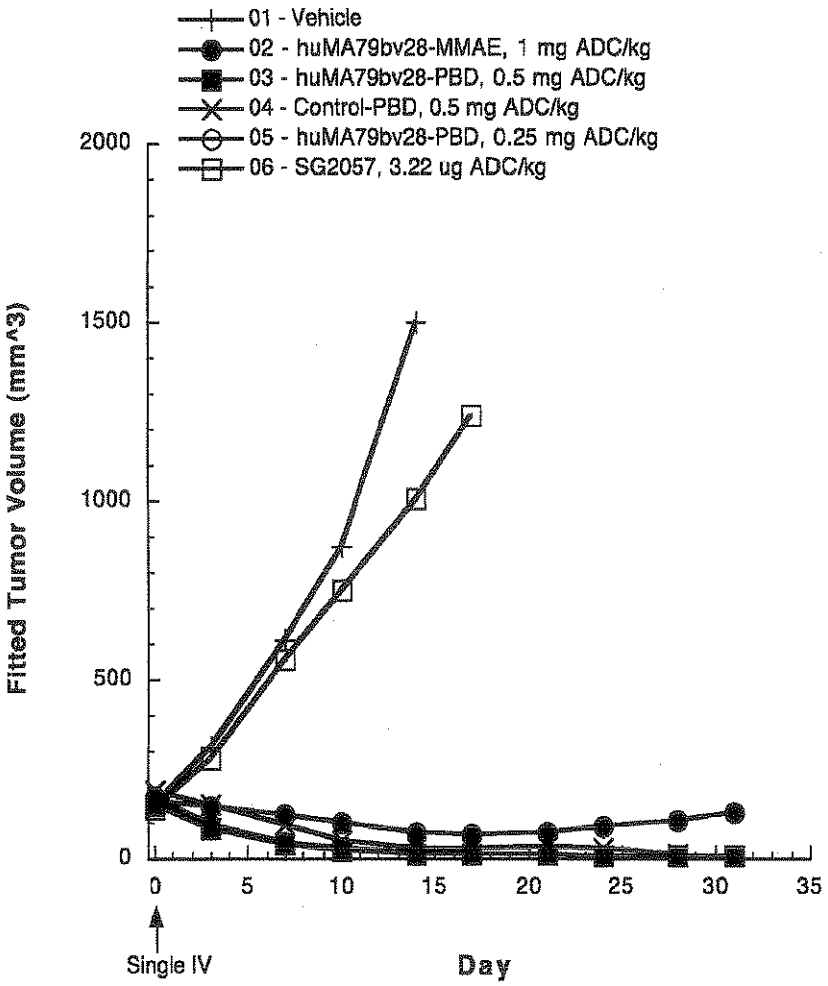

01 - Vehicle
02 - huMA79bv28-MMAE, 1 mg ADC/kg
03 - huMA79bv28-PBD, 0.5 mg ADC/kg
04 - Control-PBD, 0.5 mg ADC/kg
05 - huMA79bv28-PBD, 0.25 mg ADC/kg
06 - SG2057, 3.22 ug ADC/kg
Fitted Tumor Volume (mm^3)
2000
1500
1000
500
0
0
5
10
15
20
25
30
35
Single IV
Day

FIG. 7

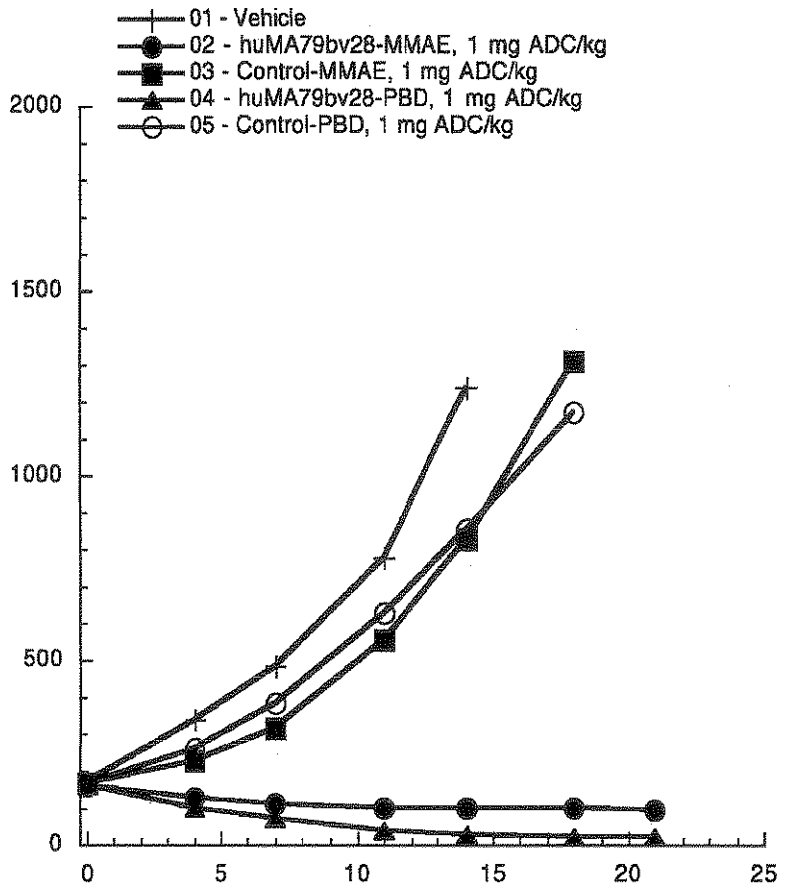

01 - Vehicle
02 - huMA79bv28-MMAE, 1 mg ADC/kg
03 - Control-MMAE, 1 mg ADC/kg
04 - huMA79bv28-PBD, 1 mg ADC/kg
05 - Control-PBD, 1 mg ADC/kg
2000
1500
1000
500
0
0
5
10
15
20
25

FIG. 8

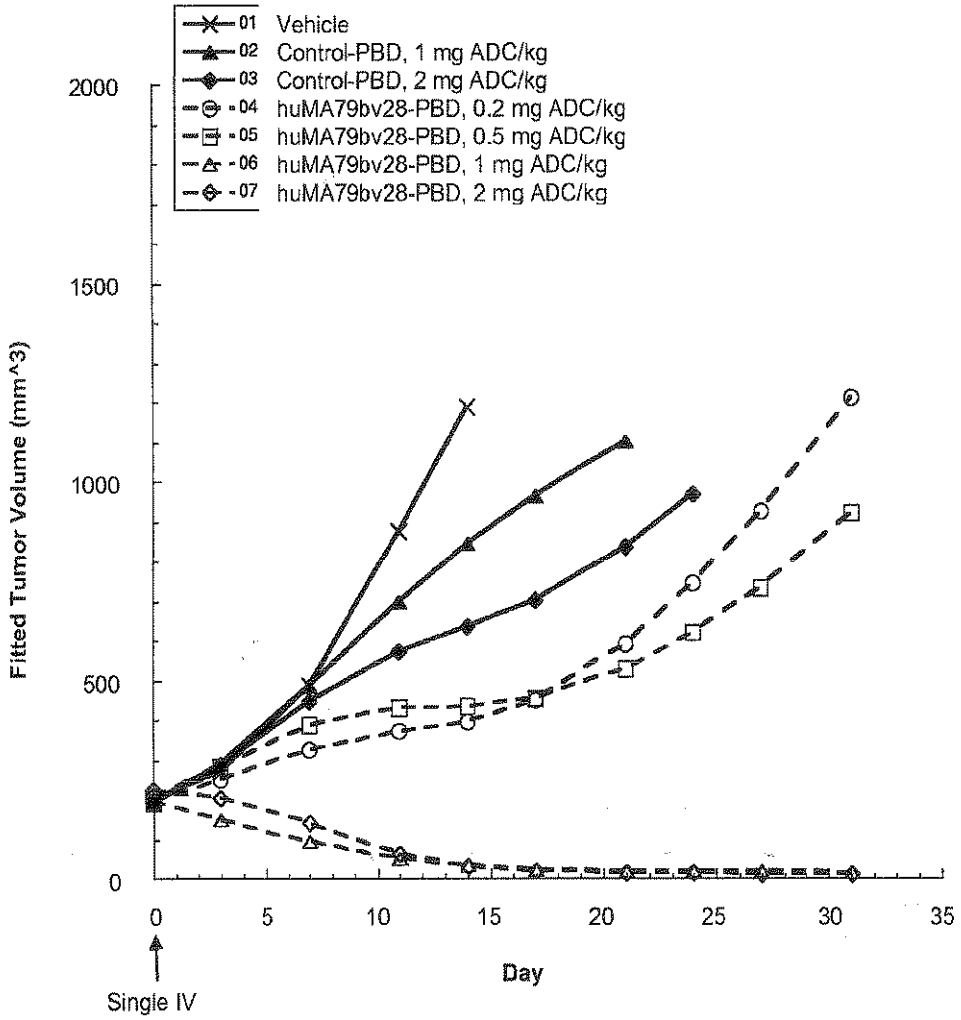

01 Vehicle
02 Control-PBD, 1 mg ADC/kg
03 Control-PBD, 2 mg ADC/kg
04 huMA79bv28-PBD, 0.2 mg ADC/kg
05 huMA79bv28-PBD, 0.5 mg ADC/kg
06 huMA79bv28-PBD, 1 mg ADC/kg
07 huMA79bv28-PBD, 2 mg ADC/kg
Fitted Tumor Volume (mm^3)
2000
1500
1000
500
0
0
5
10
15
20
25
30
35
Day
Single IV

FIG. 9

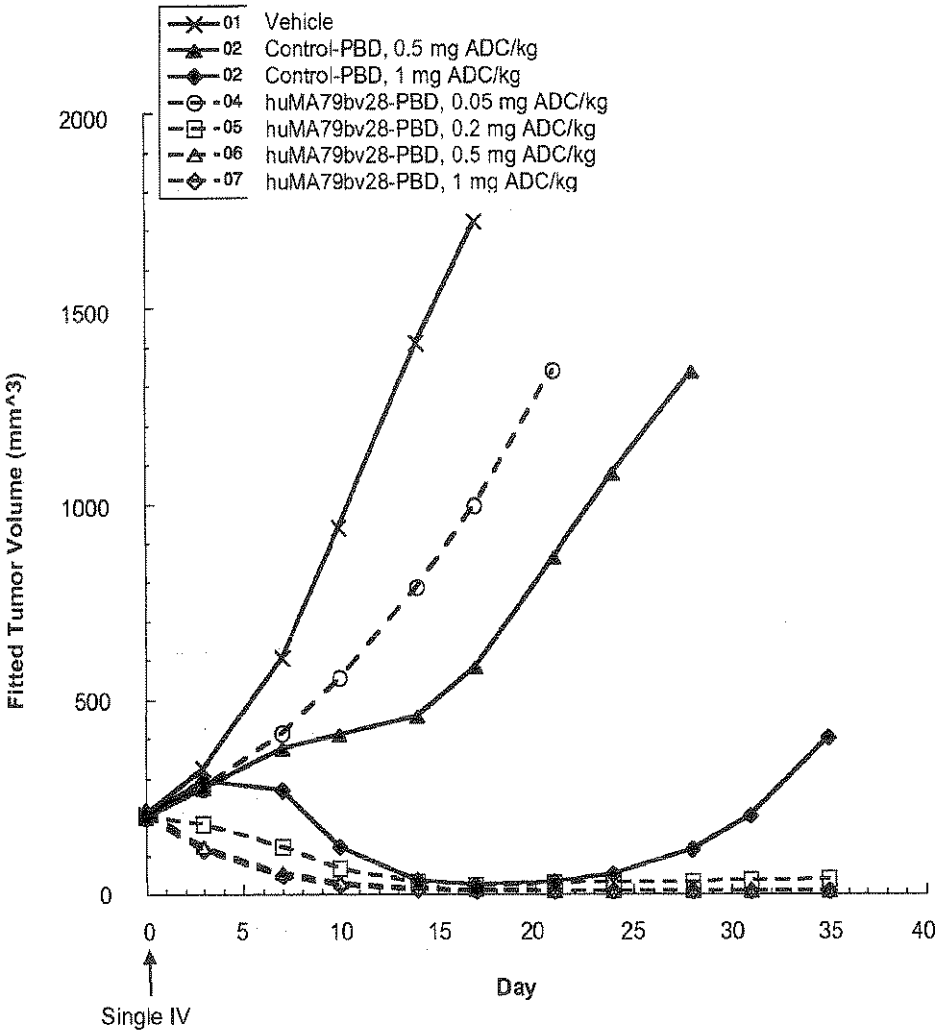

01 Vehicle
02 Control-PBD, 0.5 mg ADC/kg
02 Control-PBD, 1 mg ADC/kg
04 huMA79bv28-PBD, 0.05 mg ADC/kg
05 huMA79bv28-PBD, 0.2 mg ADC/kg
06 huMA79bv28-PBD, 0.5 mg ADC/kg
07 huMA79bv28-PBD, 1 mg ADC/kg
Fitted Tumor Volume (mm^3)
2000
1500
1000
500
0
0
5
10
15
20
25
30
35
40
Day
Single IV

FIG. 10

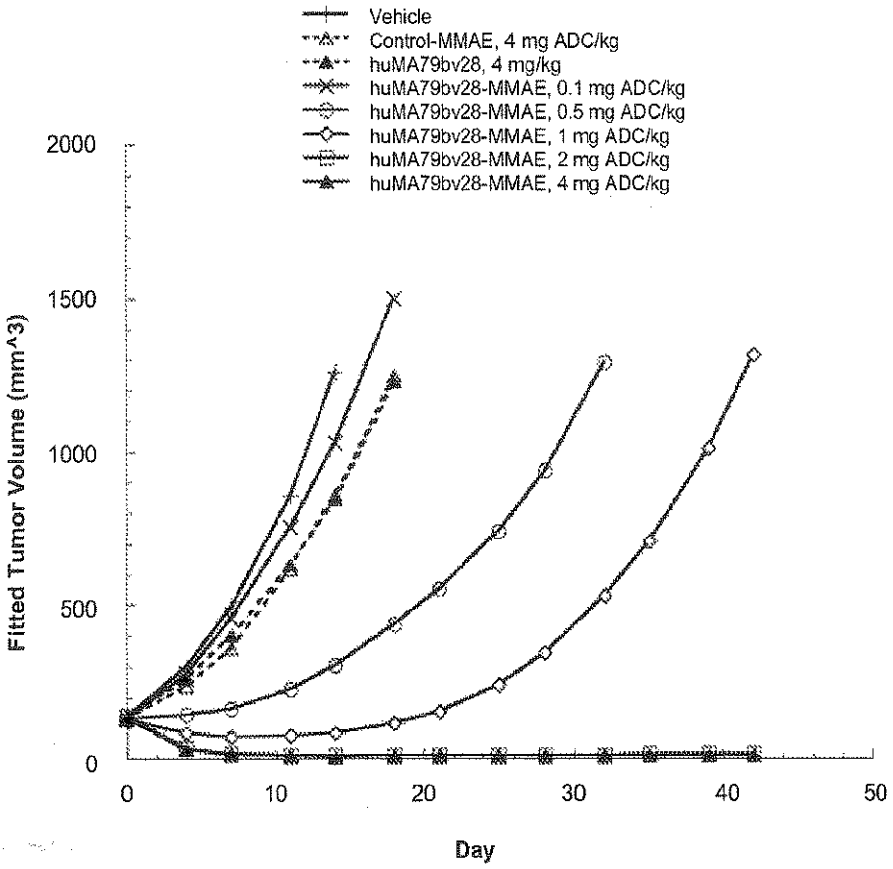

Vehicle
Control-MMAE, 4 mg ADC/kg
huMA79bv28, 4 mg/kg
huMA79bv28-MMAE, 0.1 mg ADC/kg
huMA79bv28-MMAE, 0.5 mg ADC/kg
huMA79bv28-MMAE, 1 mg ADC/kg
huMA79bv28-MMAE, 2 mg ADC/kg
huMA79bv28-MMAE, 4 mg ADC/kg
Fitted Tumor Volume (mm^3)
2000
1500
1000
500
0
0
10
20
30
40
50
Day

FIG. 11