

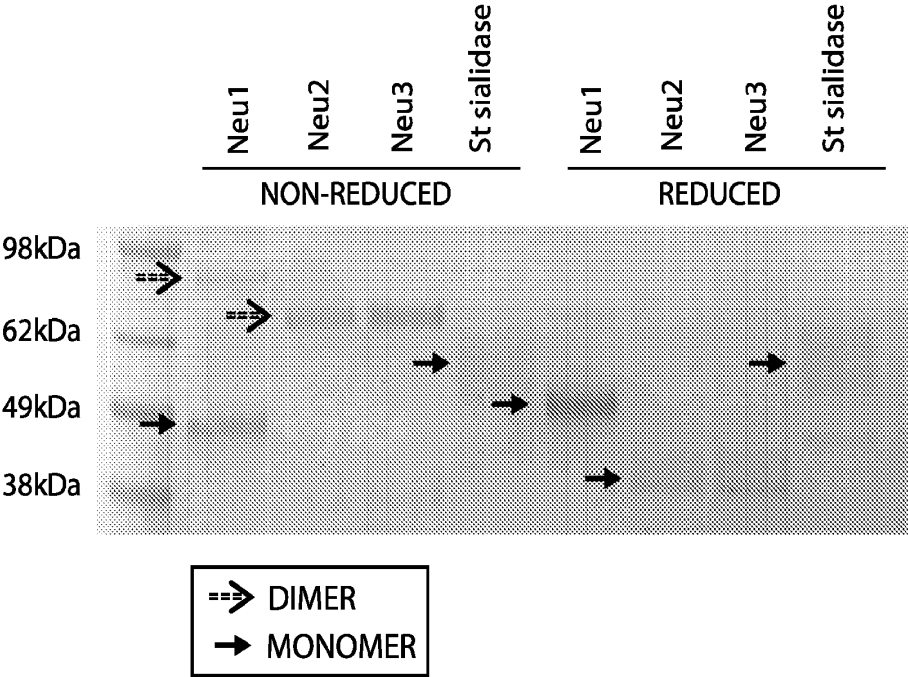


FIGURE 1

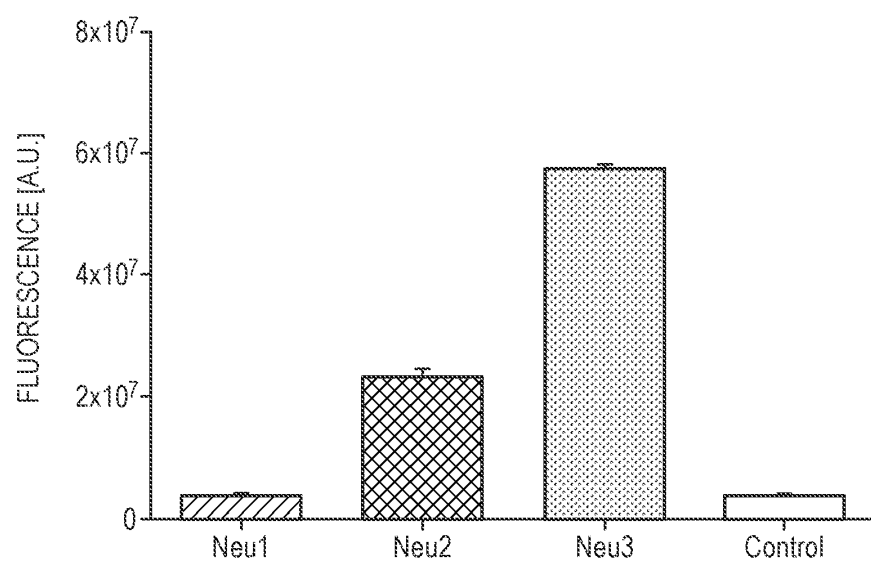


FIGURE 2

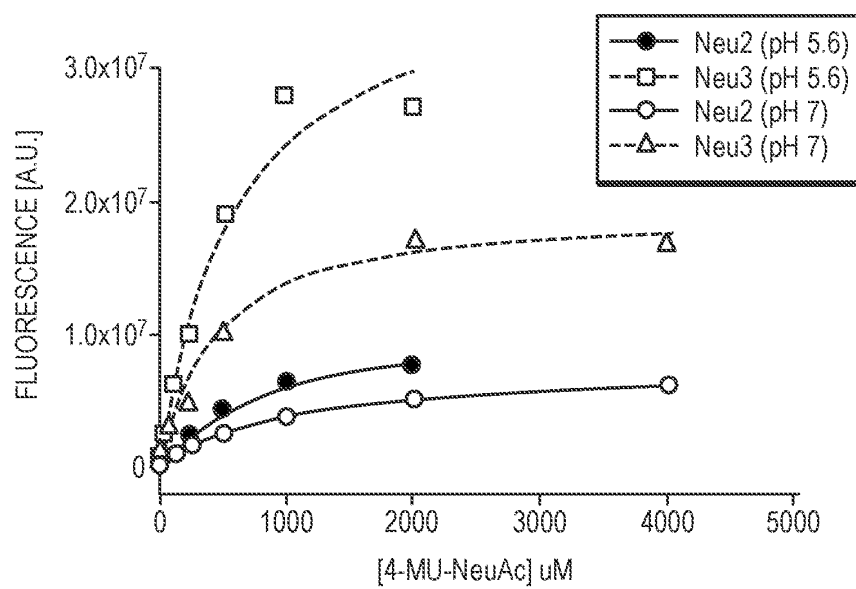


FIGURE 3

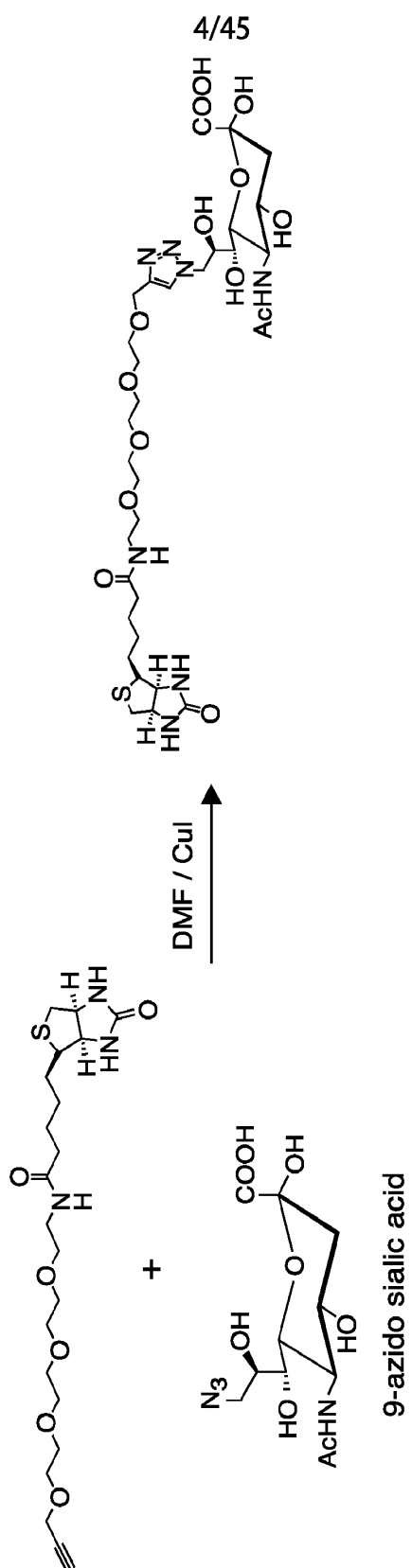


FIGURE 4

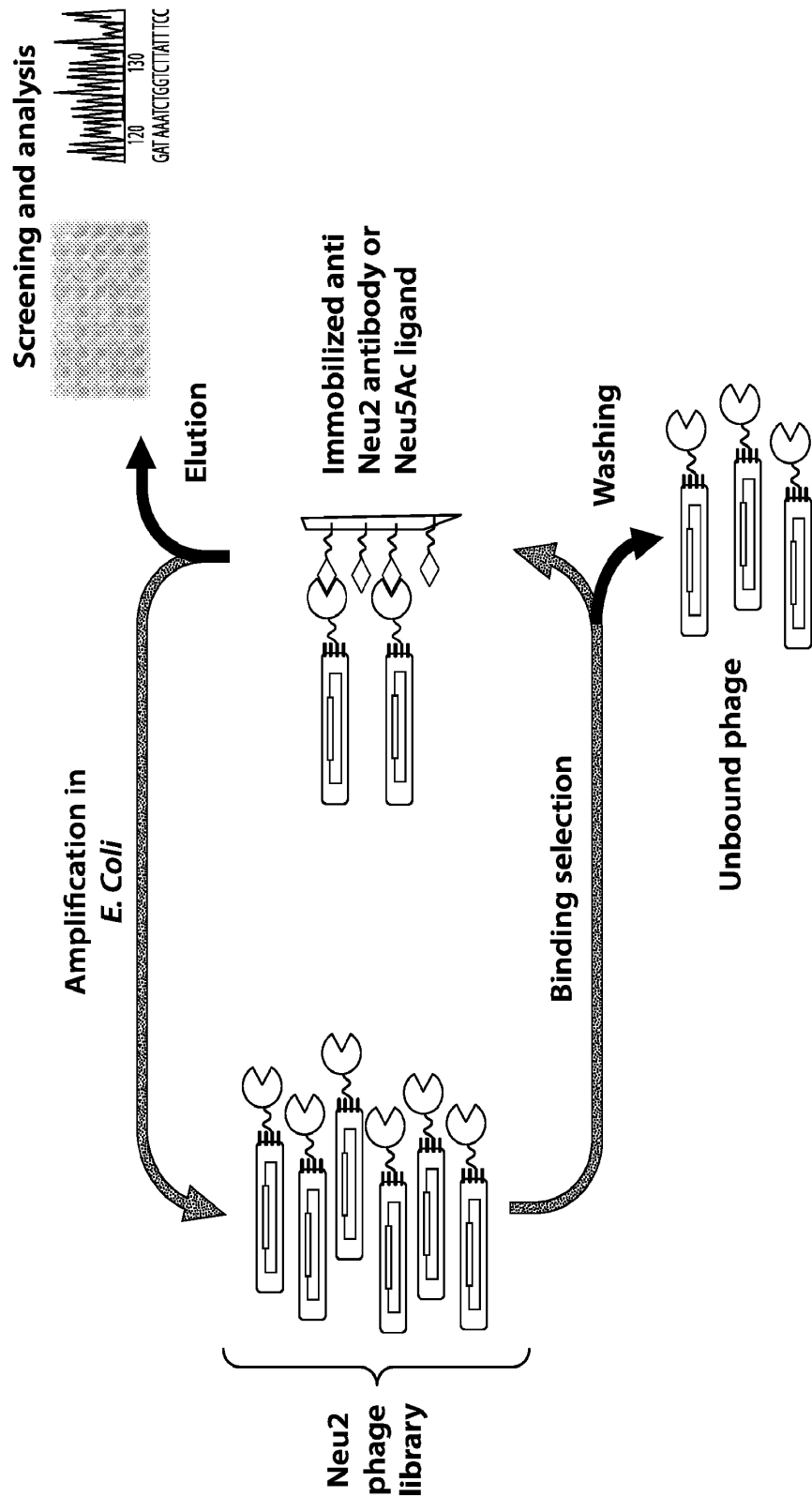


FIGURE 5

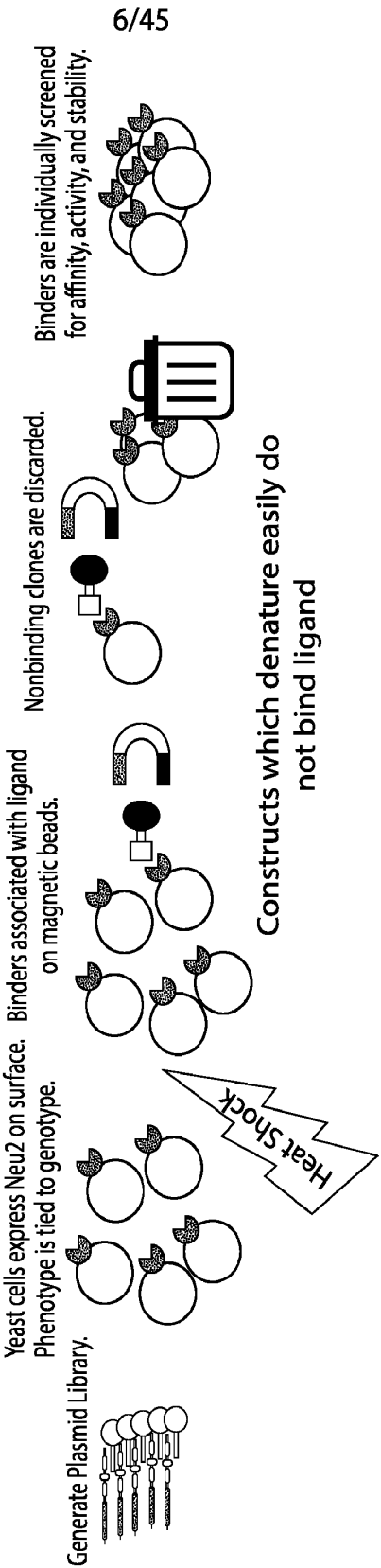


FIGURE 6

7/45

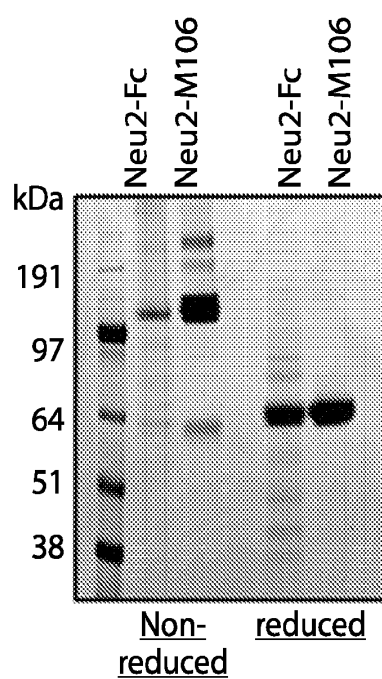


FIGURE 7A

8/45

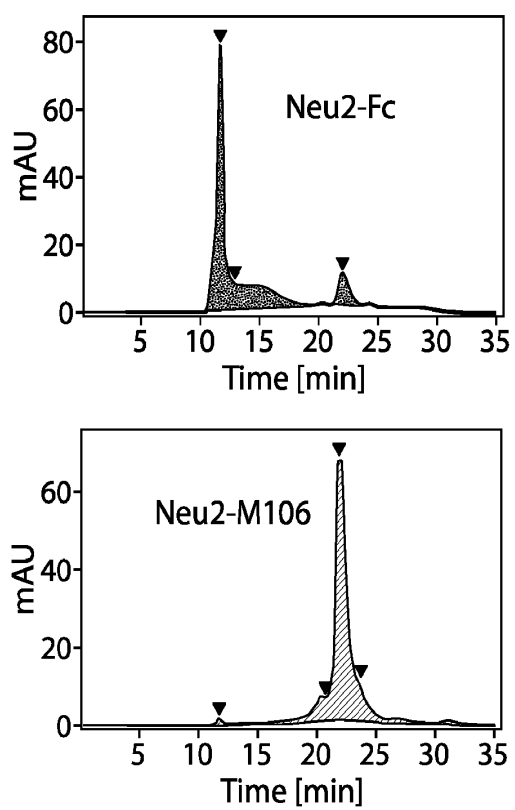


FIGURE 7B

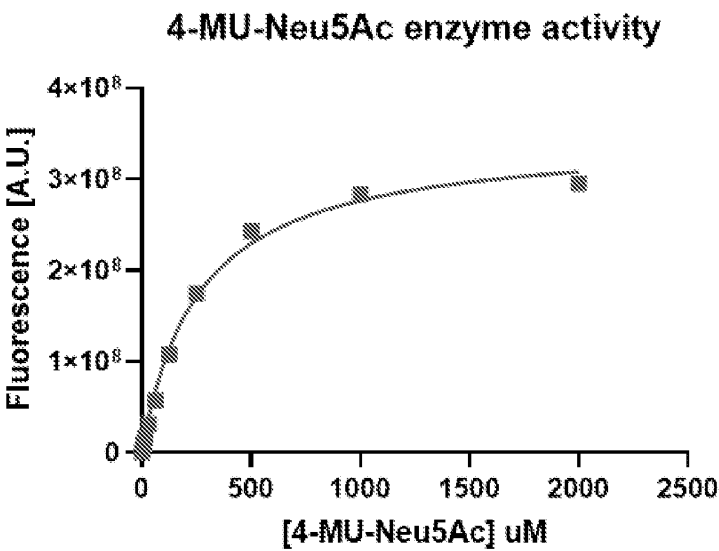


FIGURE 8

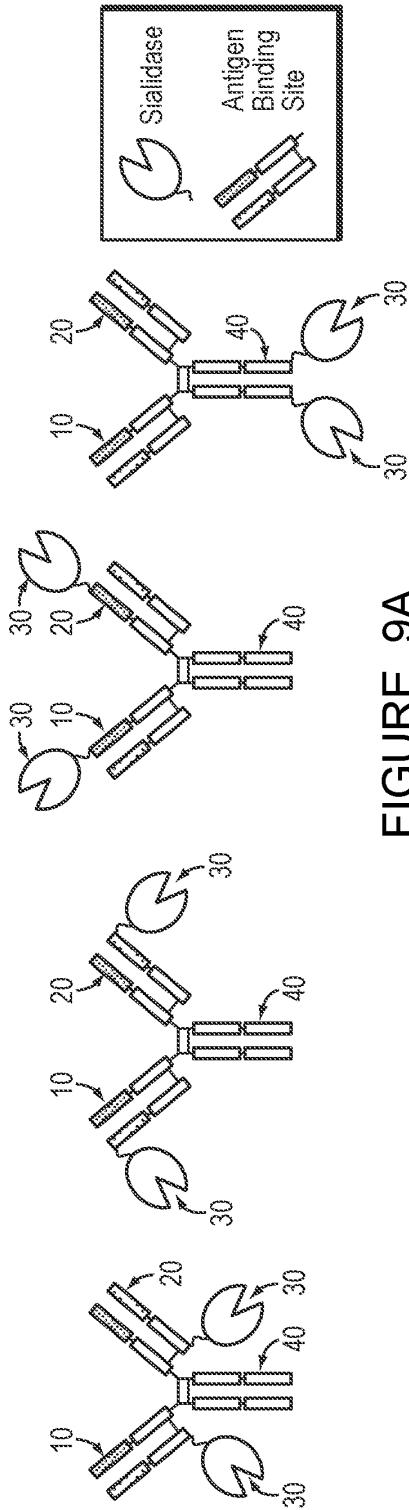


FIGURE 9A

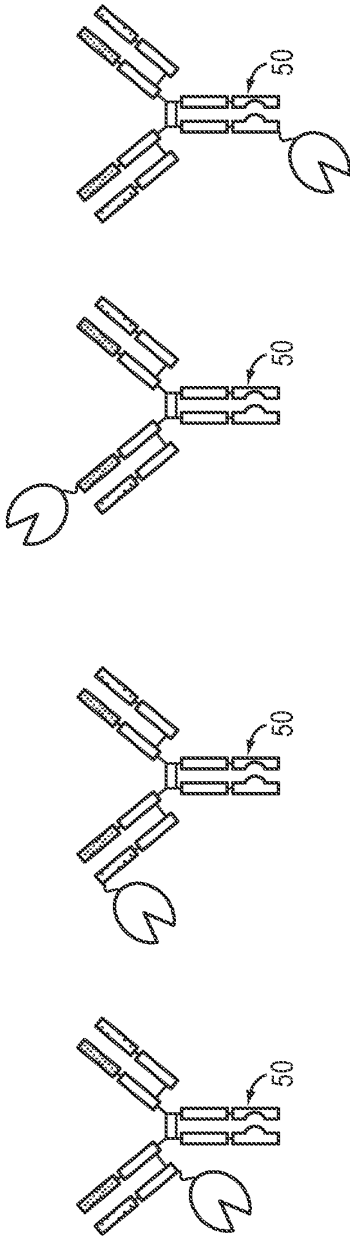


FIGURE 9B

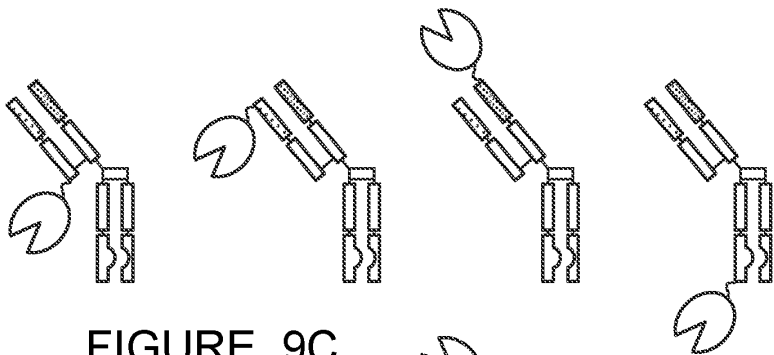


FIGURE 9C

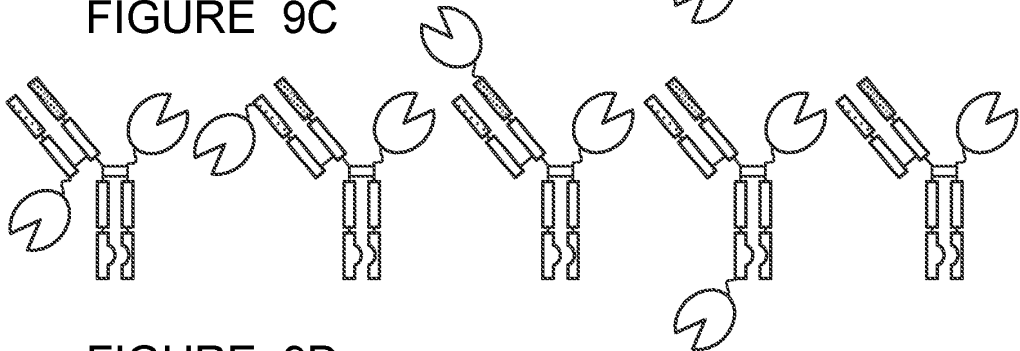


FIGURE 9D

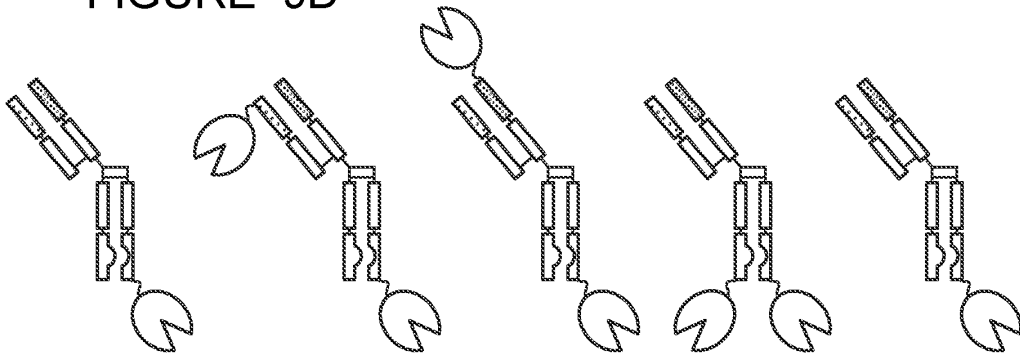


FIGURE 9E

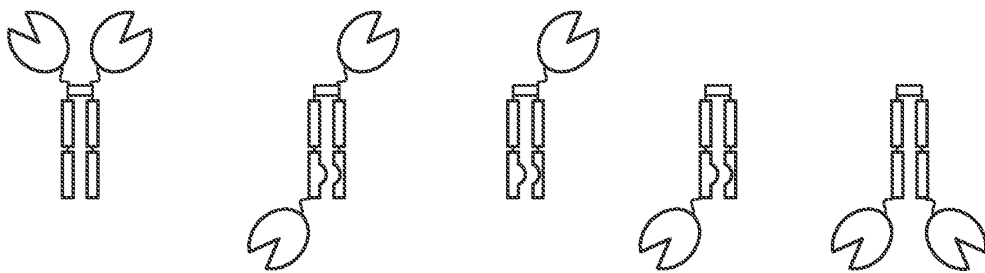


FIGURE 9F

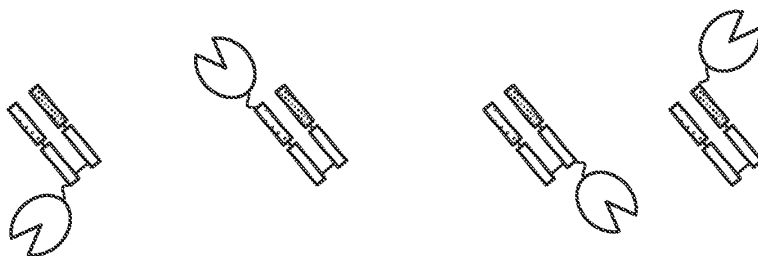


FIGURE 9G

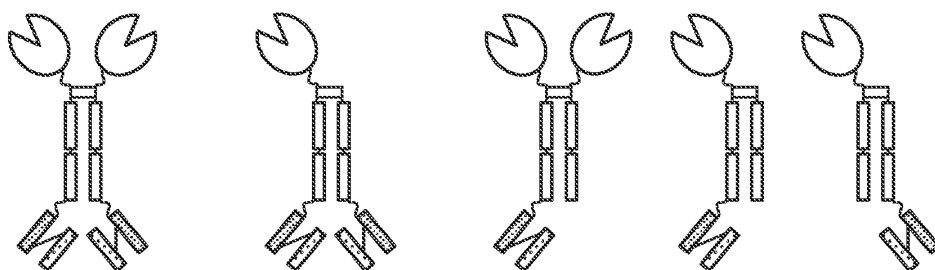


FIGURE 9H

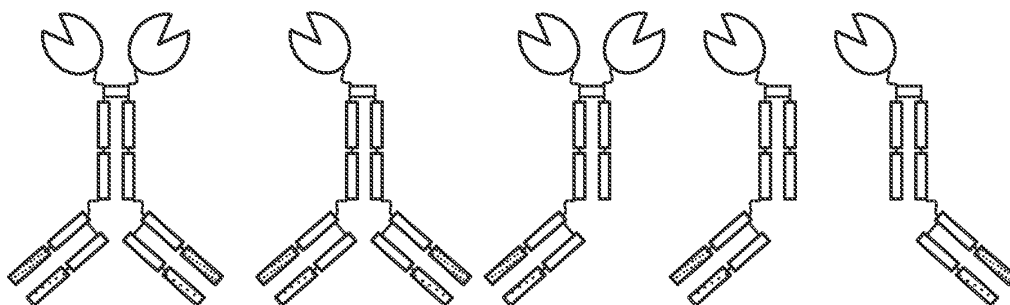


FIGURE 9I

13/45

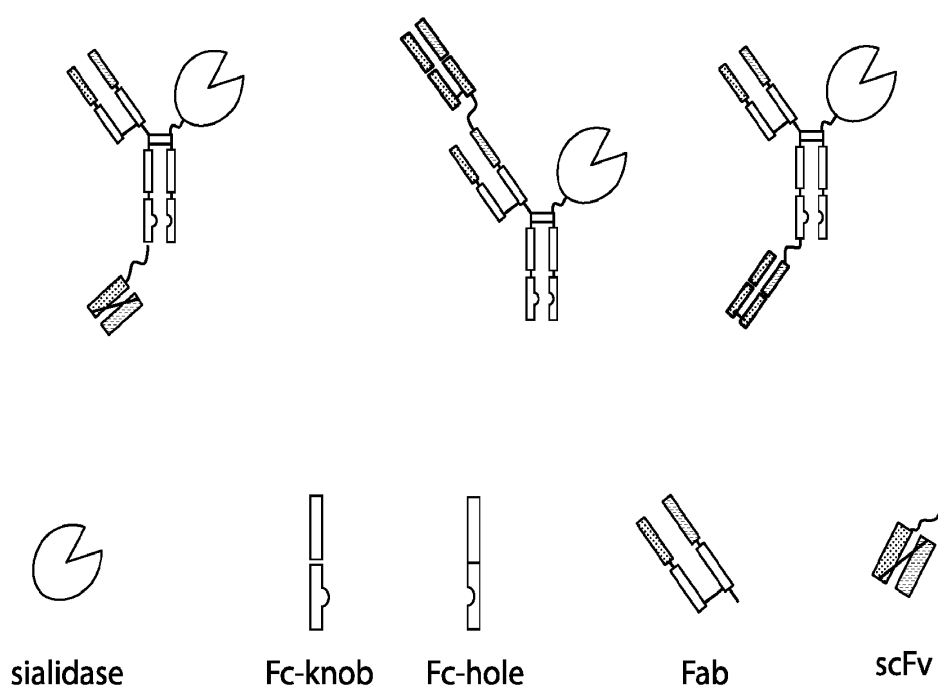
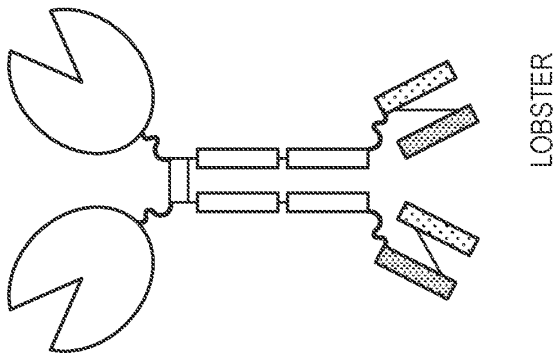
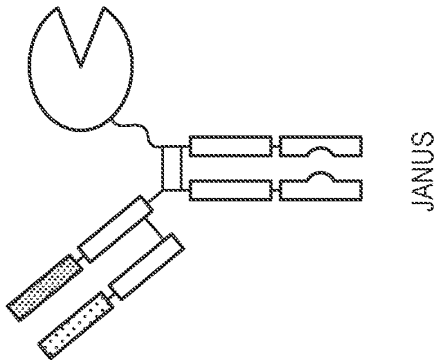


FIGURE 10



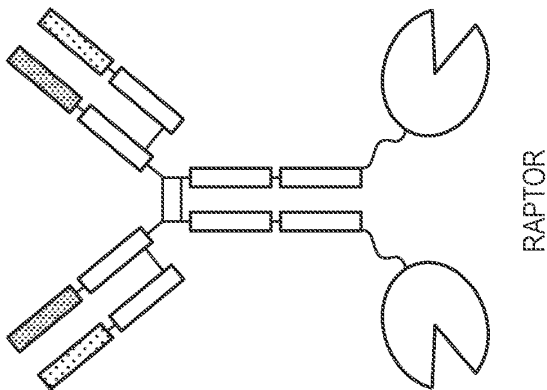
LOBSTER

FIGURE 11C



JANUS

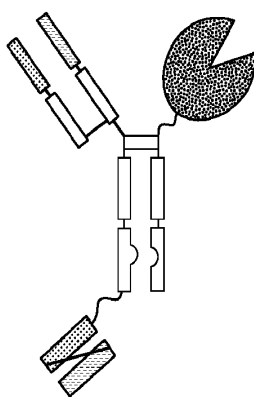
FIGURE 11B



RAPTOR

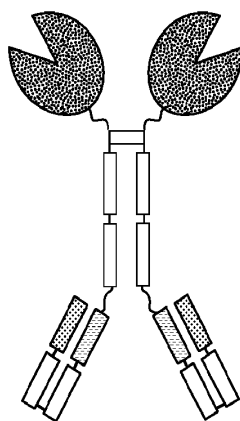
FIGURE 11A

15/45



BUNK

FIGURE 11D



LOBSTER-FAB

FIGURE 11E

16/45

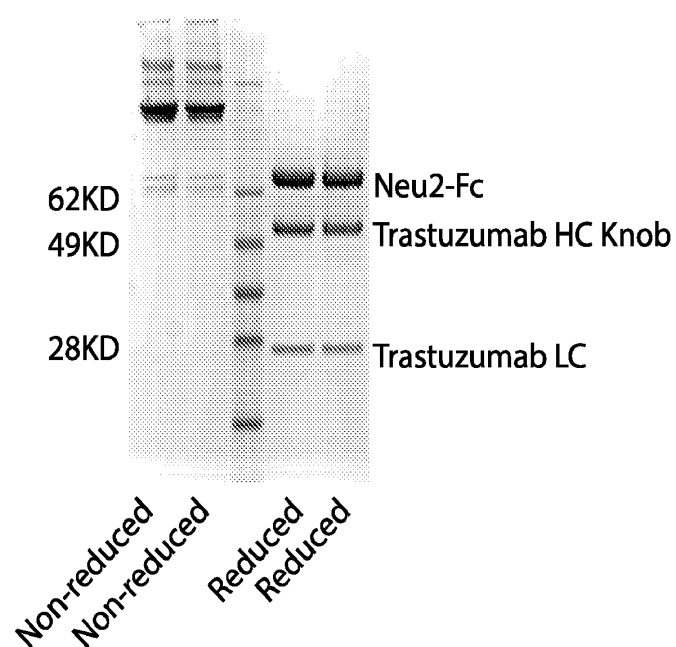


FIGURE 12

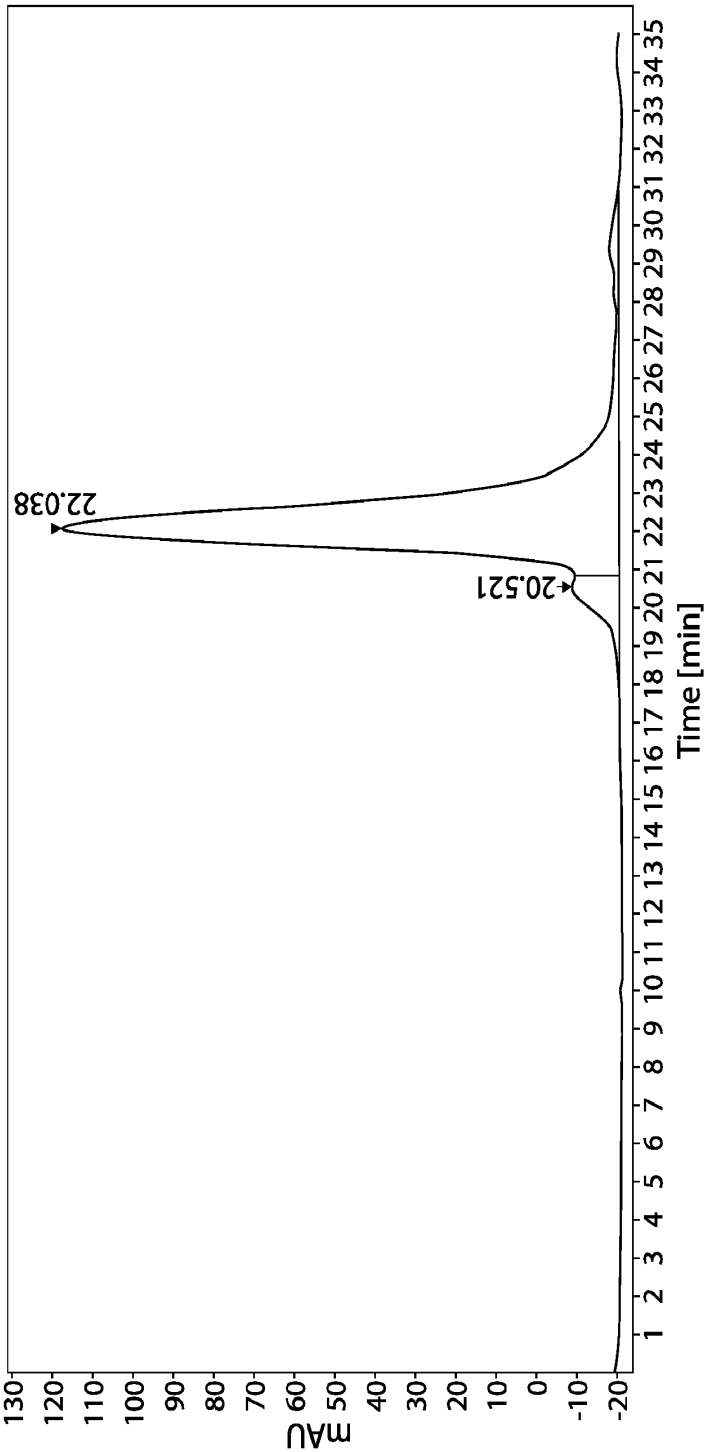
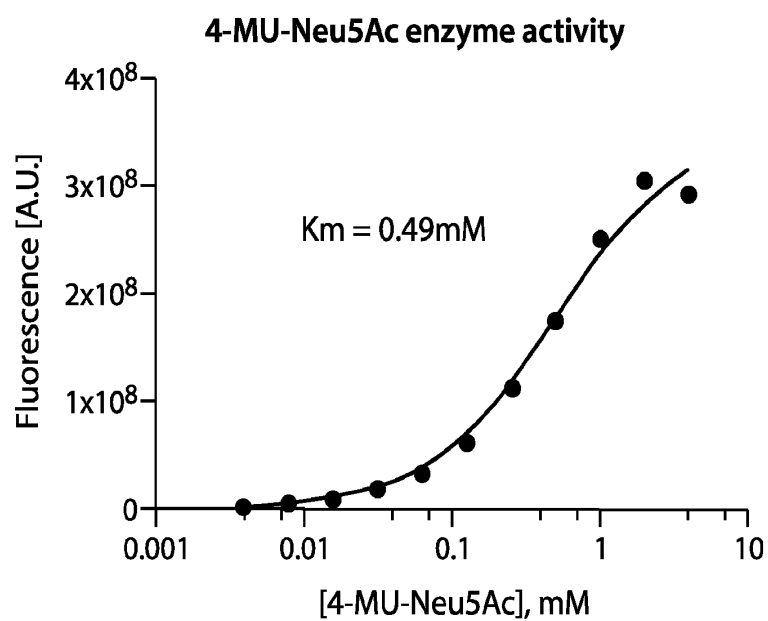
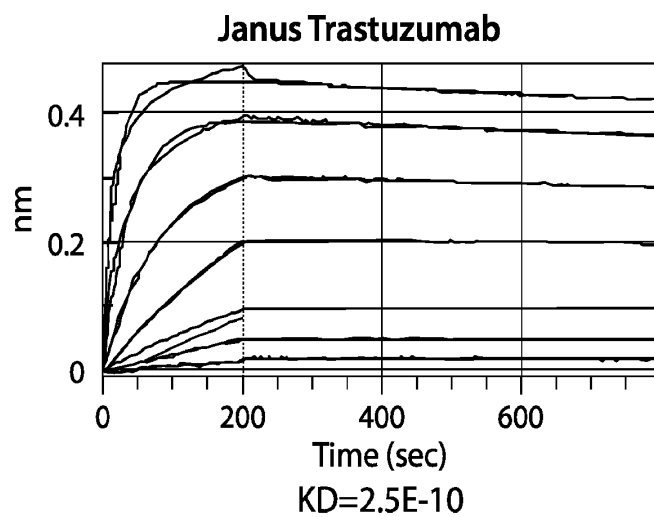
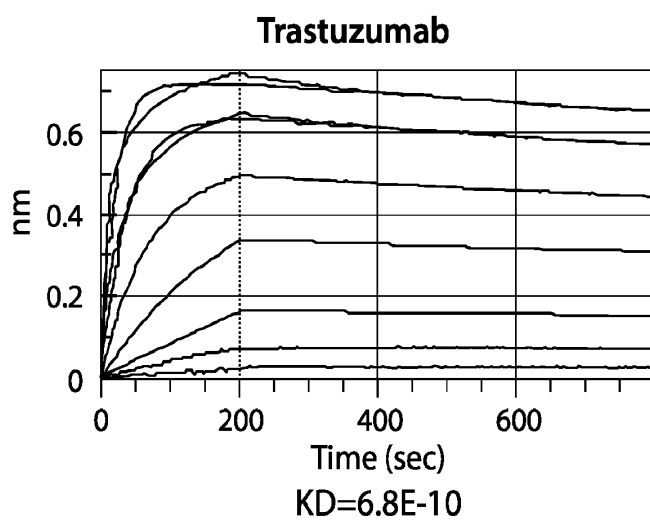


FIGURE 13

18/45

**FIGURE 14**

19/45

**FIGURE 15**

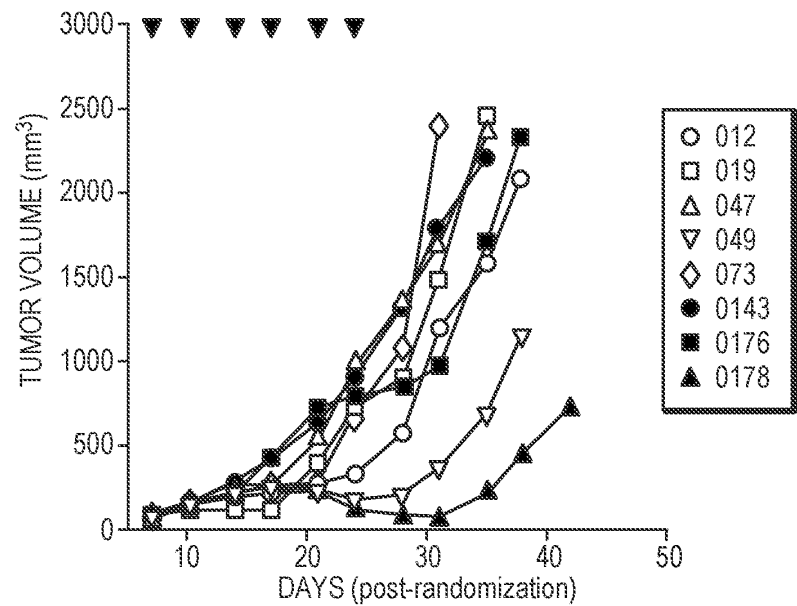


FIGURE 16A

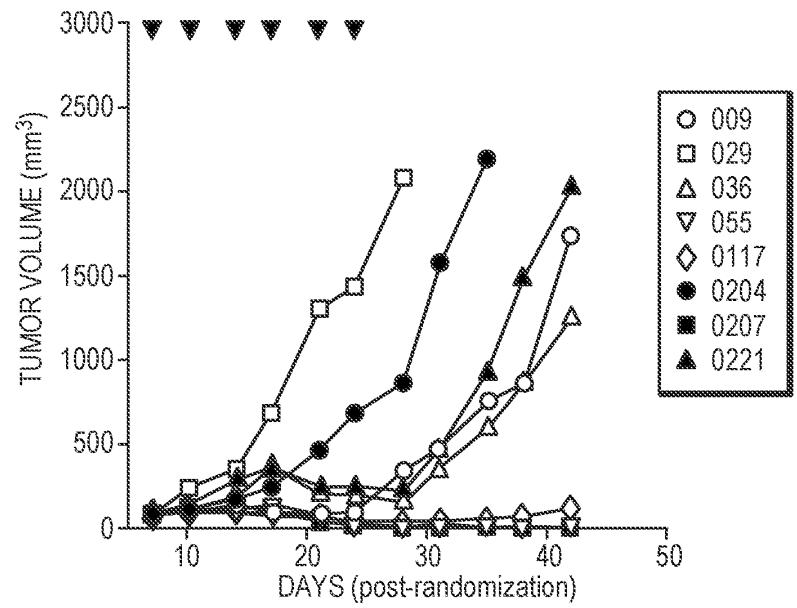


FIGURE 16B

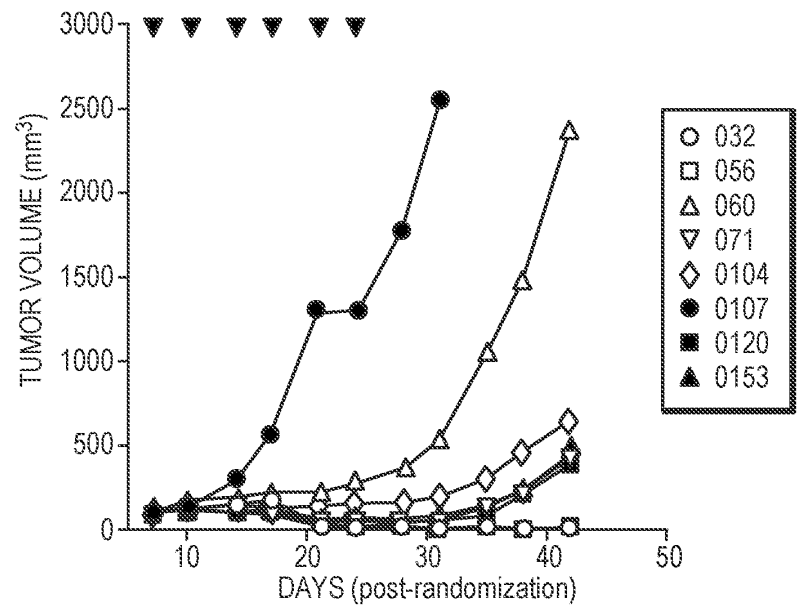


FIGURE 16C

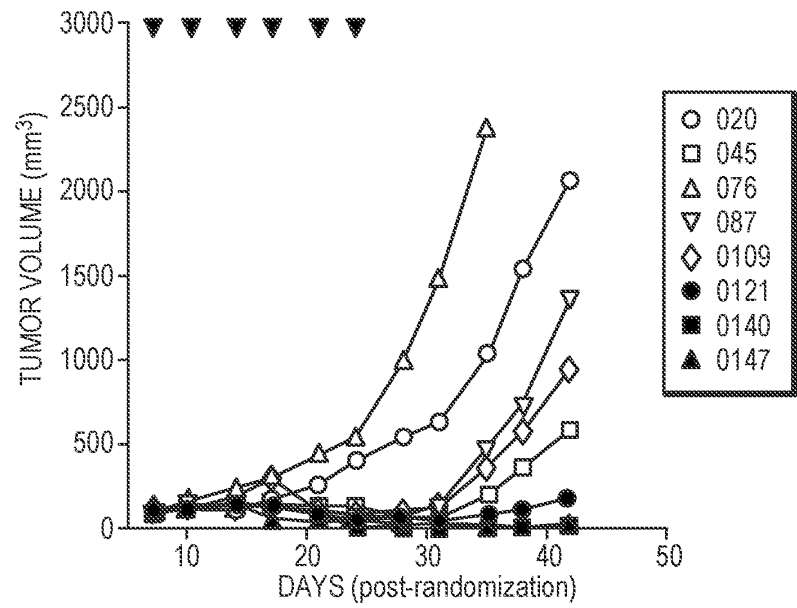


FIGURE 16D

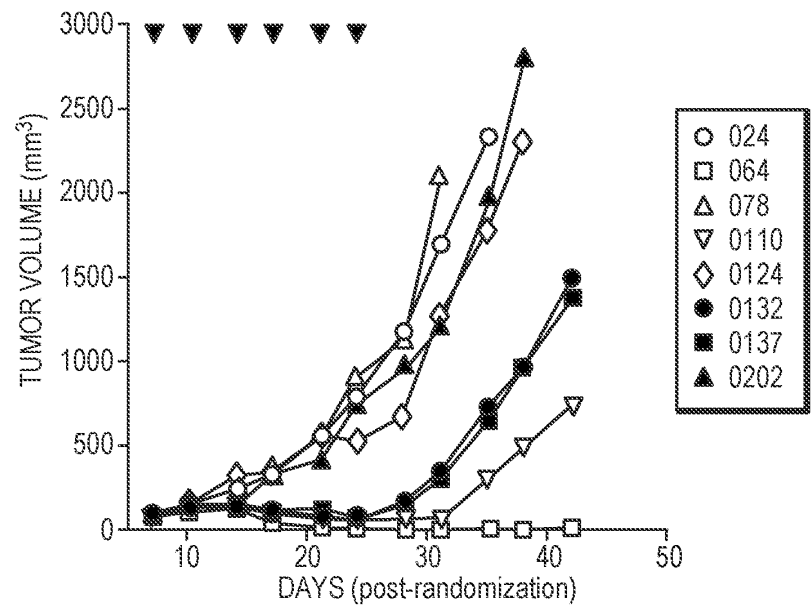


FIGURE 17A

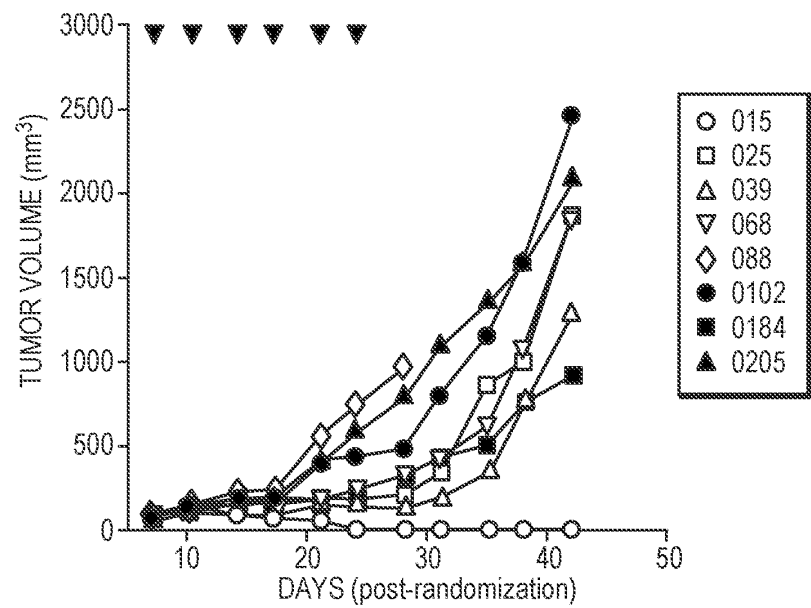


FIGURE 17B

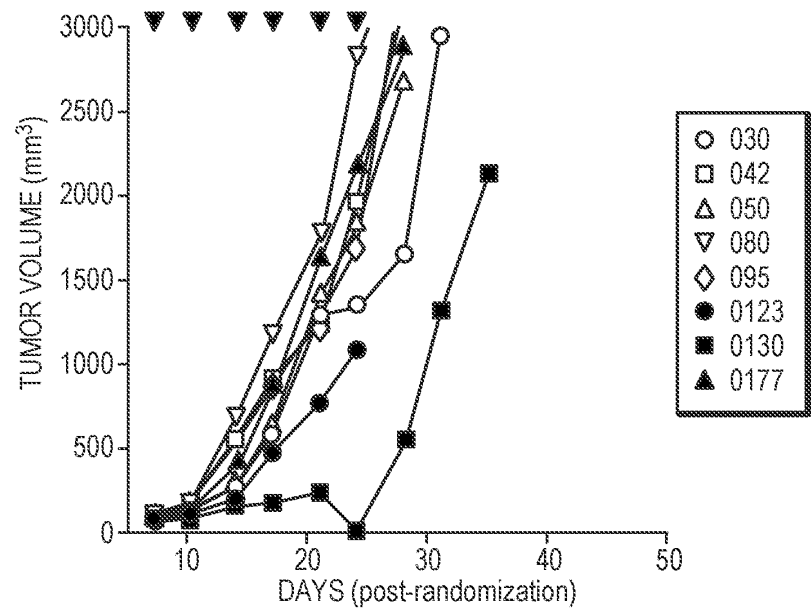


FIGURE 17C

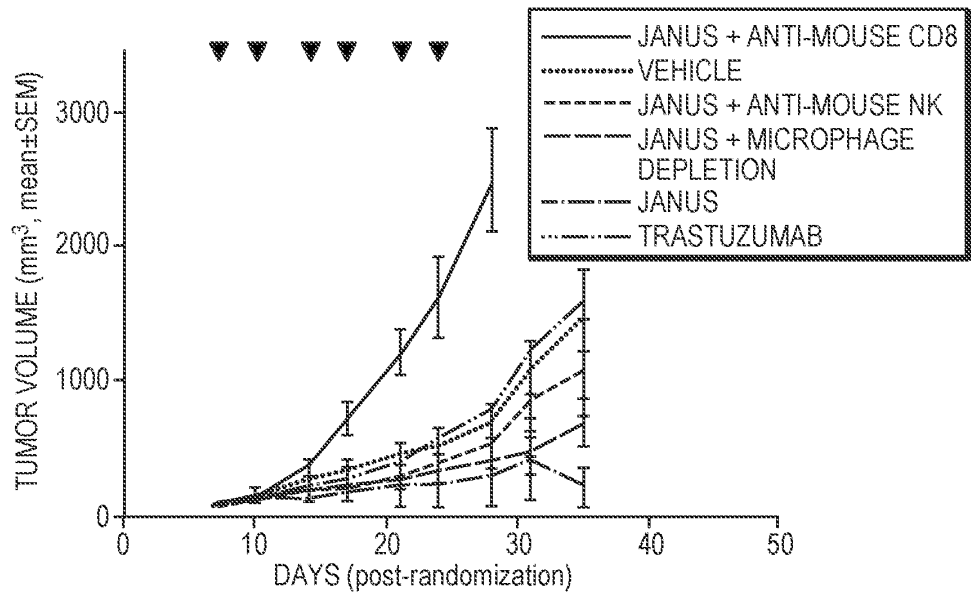


FIGURE 17D

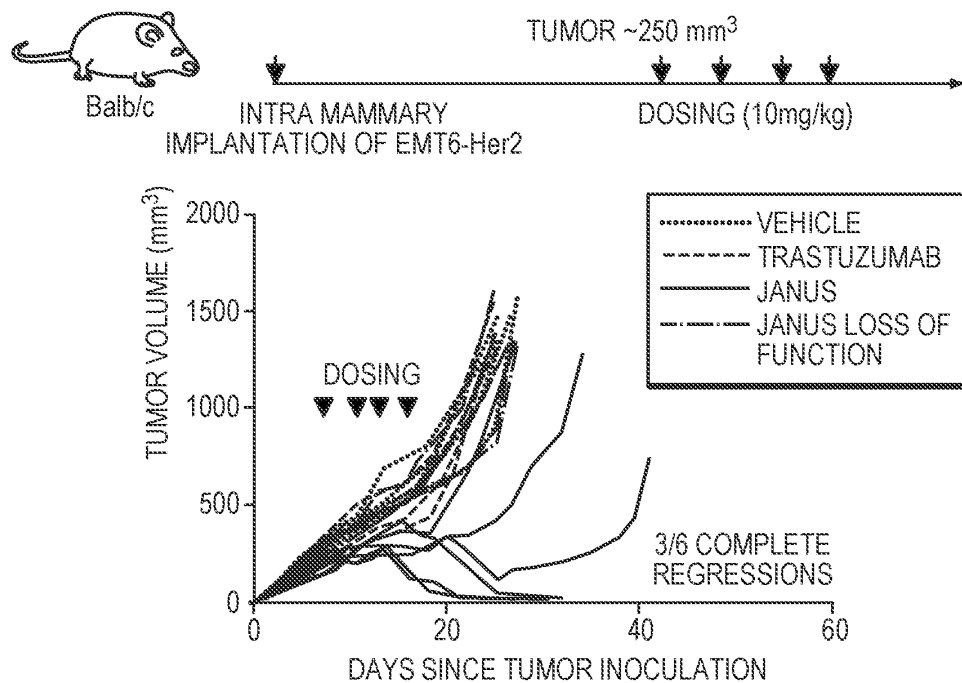


FIGURE 18A

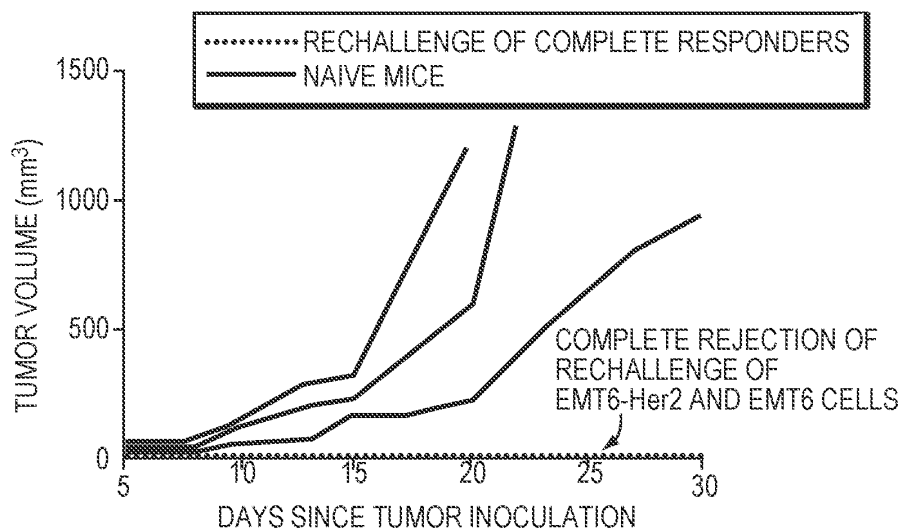


FIGURE 18B

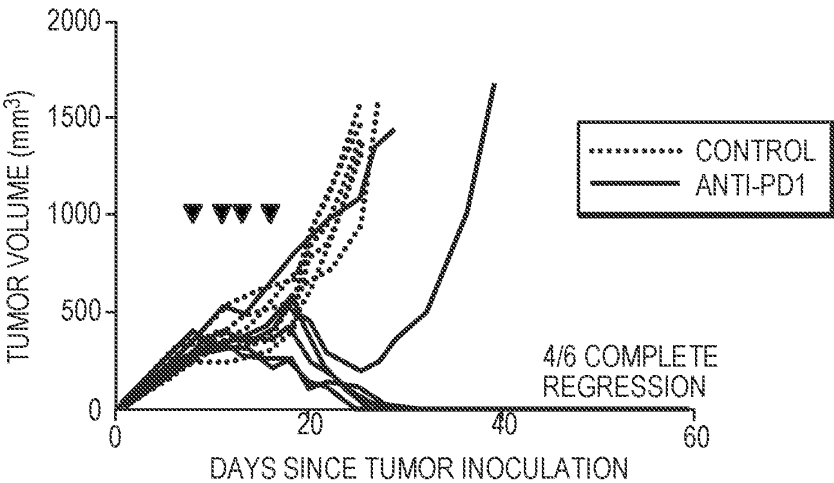


FIGURE 19A

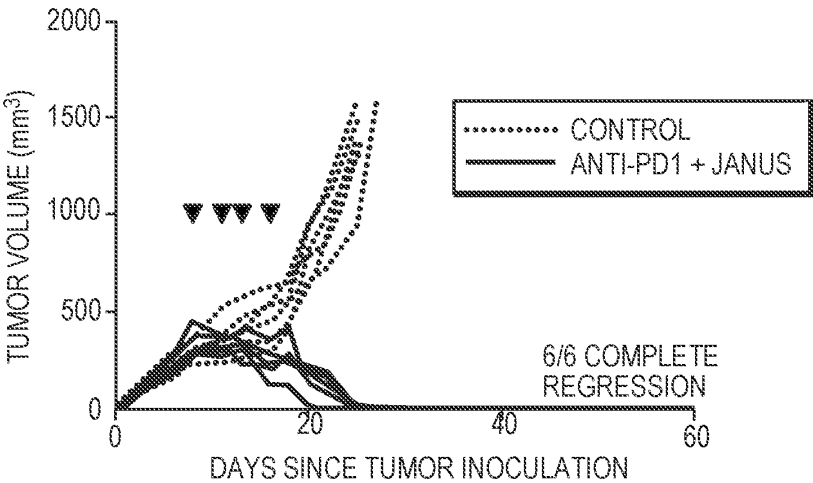


FIGURE 19B

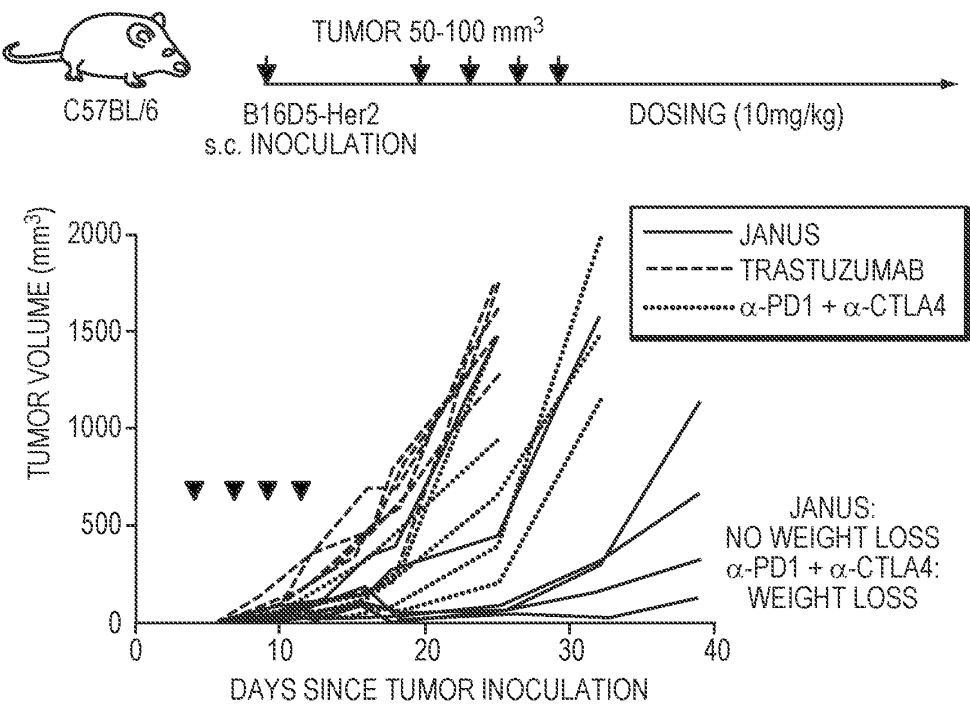


FIGURE 20

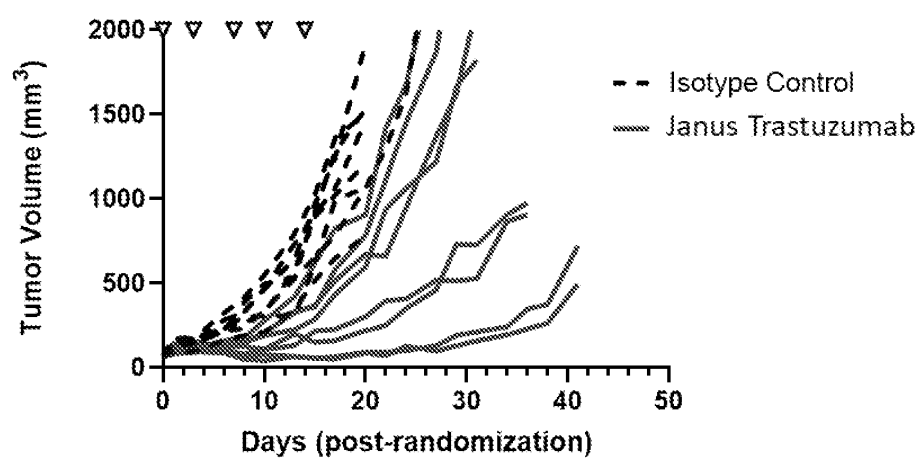


FIGURE 21

28/45

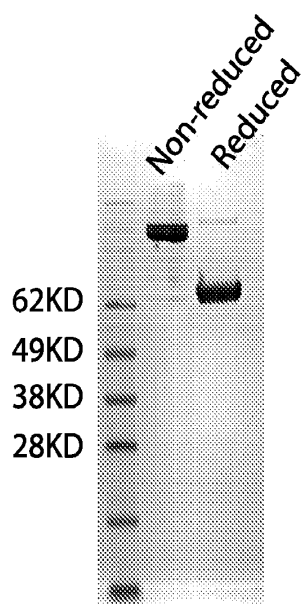


FIGURE 22A

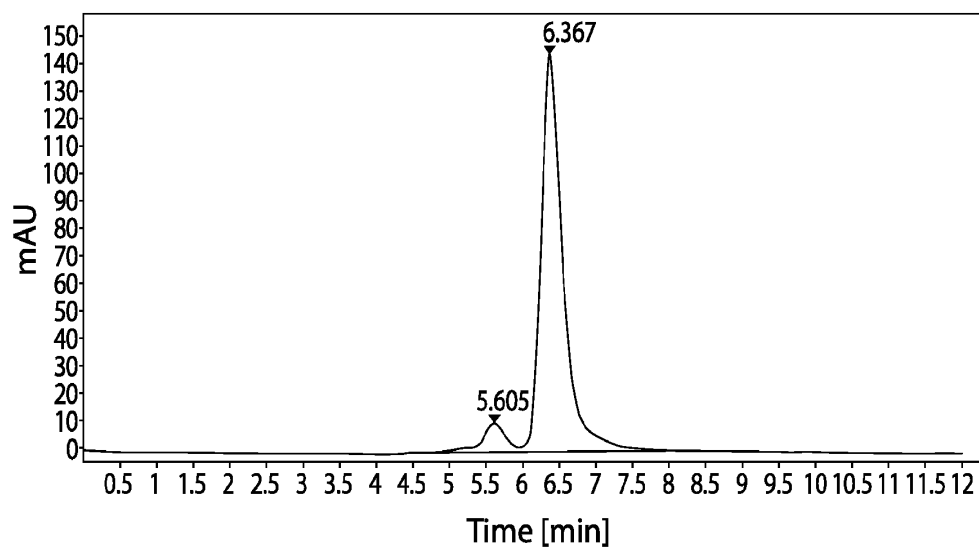


FIGURE 22B

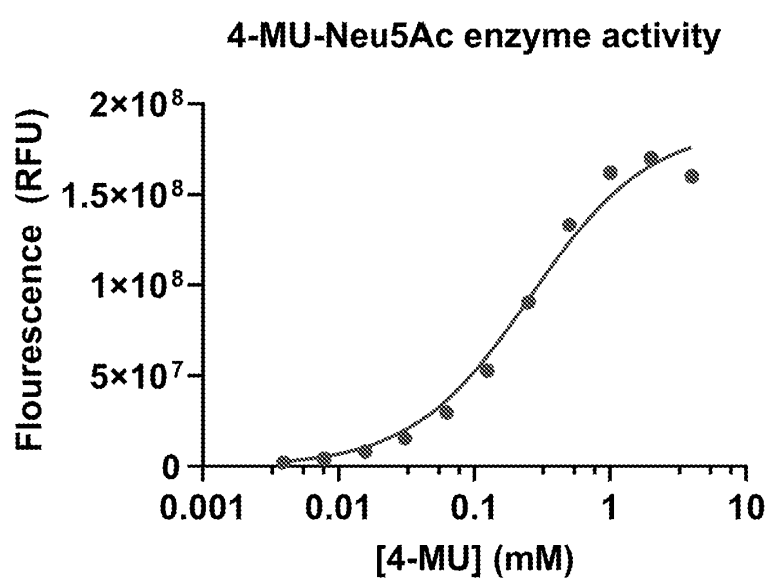


FIGURE 23

30/45

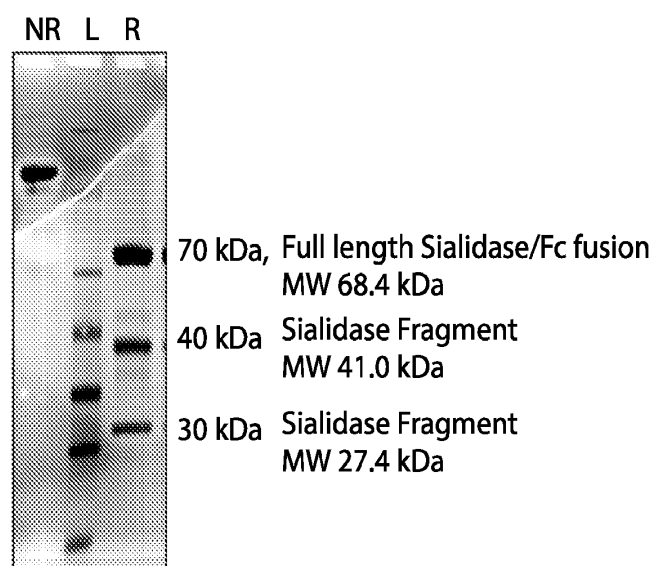


FIGURE 24A

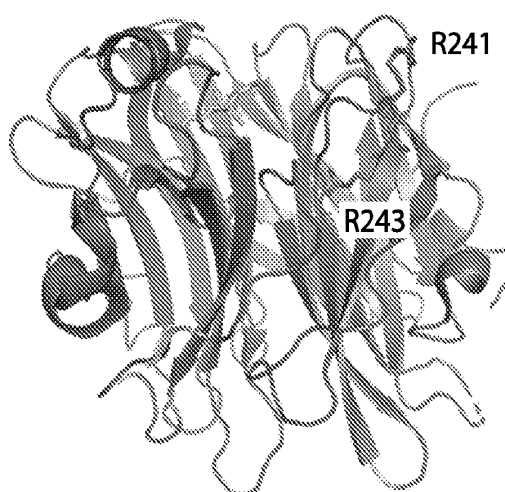


FIGURE 24B

31/45

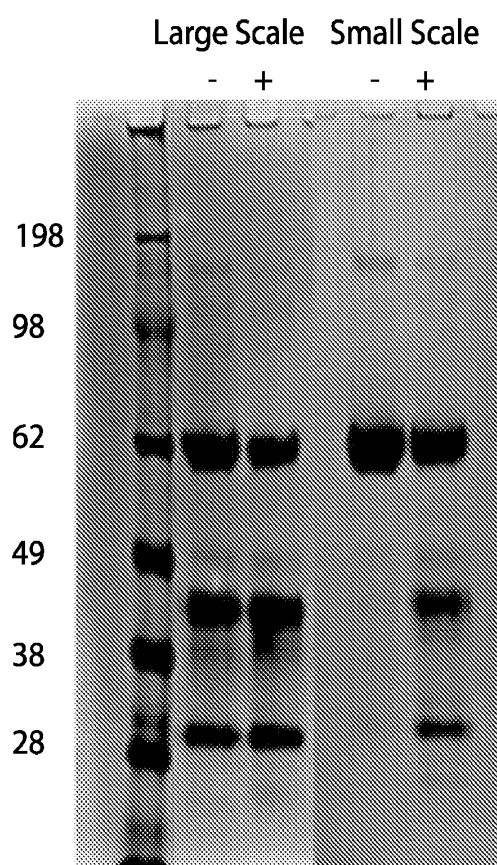


FIGURE 25

32/45

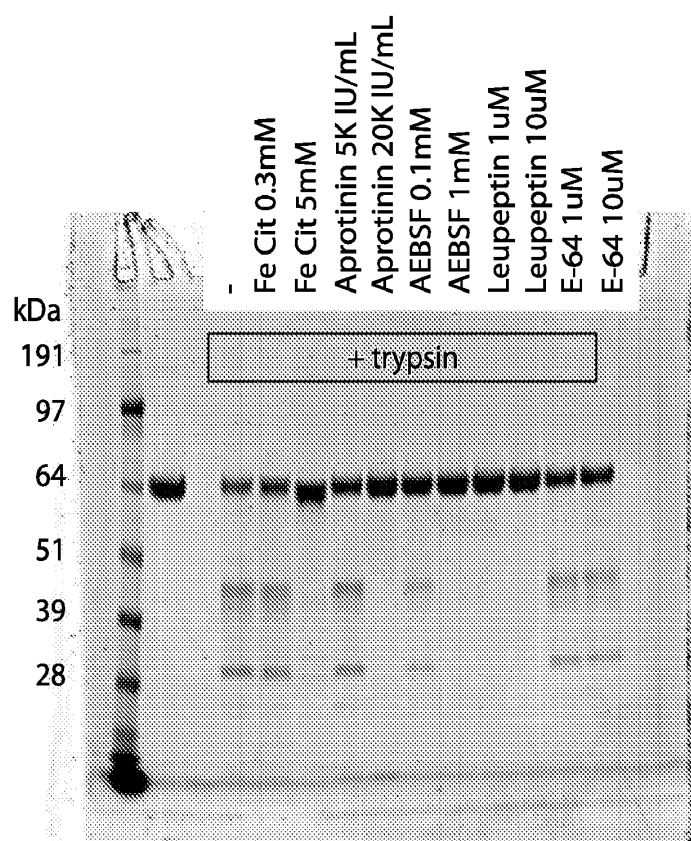


FIGURE 26

33/45

## Conserved P1 Arginine

## Conserved P1 Arginine

|                              |           |                        |          |
|------------------------------|-----------|------------------------|----------|
| K0Q5Y5_PETMA/1-393           | CHCRIVM   | K0PUUO_STRPU/1-375     | QATROES  |
| A0A1U7TTG9_TARSY/1-378       | LRARVQA   | K0Q6U1_PARLI/1-356     | KKPHPRS  |
| K0Q5Y7_SACKO/1-374           | CRCRIIA   | I3N3C4 ICTTR/1-388     | RGARVQA  |
| A0A0A9YMQ4_LYGHE/1-476       | HPTHQGV   | G1MSG2_MELGA/1-384     | KGARIQA  |
| NEUR2_RAT/1-379              | IGARVQA   | H0VEI5_CAVPO/1-381     | QKARVQA  |
| K0Q5Y3_BRAFL/1-383           | CHCKAFL   | F1SM45_PIG/1-379       | LQARVQA  |
| NEUR2_MOUSE/1-379            | LGARVQA   | J9P7D3_CANLF/1-378     | RRARVQA  |
| H2QJM5_PANTR/1-378           | LQARVQA   | K0PUQ5_STRPU/1-379     | CSCRIQA  |
| K0PUS8_XENTR/1-397           | KHFRVEA   | M3WEW5_FELCA/1-379     | LRARVQA  |
| A0A1D5PLC0_CHICK/1-379       | RGARIQA   | K0Q567-TAEGU/1-453     | RGCRAVA  |
| K0PUS2_ANOCA/1-423           | DKSRAEA   | H0ZAF2_TAEGU/1-378     | RGARIQA  |
| F7BZE1_ORNAN/1-404           | RGSRVQA   | A0A1S2ZJU8_ERIEU/1-390 | WGARIQA  |
| K0Q1U9_BRAFL/1-393           | CSCKAFFM  | A0A0R4J224_MOUSE/1-385 | LGARVQA  |
| H3HXXK1_STRPU/1-378          | CHCRLQS   | Q8R0U7_MOUSE/1-334     | LGARVQA  |
| H3HXXK0_STRPU/1-380          | CNCRIQA   | Q3ULV6_MOUSE/1-379     | LGARVQA  |
| H0X8X5_OTOGA/1-376           | LRARVQA   | E9Q0I0_MOUSE/1-393     | LGARVQA  |
| A0A1U7RKK1_ALLSI/1-380       | RGARVQA   | K0Q1X8_XENTR/1-384     | GKKRIEA  |
| A0A0D9R225_CHLSB/1-381       | LRARIQA   | G1RWA2_NOMLE/1-380     | LRARVQA  |
| U3J2K3_ANAPL/1-405           | KGARIQA   | K0Q575_STRPU/1-409     | QOTRAAI  |
| H3AXU1_LATCH/1-381           | LGSRVQA   | F7G6S2_MACMU/1-381     | LRARIQA  |
| NEUR2_CRIGR/1-379            | LGARVQA   | G1T7Y0_RABIT/1-381     | QGSRVQA  |
| H3AXU0_LATCH/1-378           | LGSRVQA   | K0Q571_CHICK/1-470     | LGFRVQA  |
| A0A218UCK9_9PASE/1-380       | RGARIQA   | K0Q1X5_ANOCA/1-420     | HKYRAGA  |
| F6ZED6_CALJA/1-379           | LRARVQA   | Q5BK97_RAT/1-379       | IGARVQA  |
| W5QDI3_SHEEP/1-379           | HQARVQA   | A0A287CXJ5 ICTTR/1-388 | RGARVQA  |
| V8N5X3_OPHHA/1-310           | DRYRVEA   | A0A1S3FN43_DIPOR/1-379 | RGARVQA  |
| F6ZZS9_HORSE/1-379           | LRARVQA   | G5E5Q1_BOVIN/1-379     | LRARVQA  |
| Human Neu2 NEUR2_HUMAN/1-380 | LRARVQA   | K0PUR2_KARBR/1-427     | --GRGVA  |
| K0Q5Z5_XENTR/1-369           | CGKRIEA   | K0PUN9_ANOCA/1-405     | ICSCRIVI |
| K0Q5Z7_BRAFL/1-398           | HARRQQS   | G1Q5N4_MYOLU/1-379     | RGARIQA  |
| K0Q5Z1_KARBR/1-368           | --FFRITRT | G3QRW5_GORGO/1-380     | LRARVQA  |
| A0A1V4KA9_PATFA/1-379        | RGARIQA   | U3KGF1_FICAL/1-379     | RGARIQA  |
| K0Q6T6_SACKO/1-366           | CKCRIFS   | GT0S2_LOXAF/1-381      | RRARVQA  |
| K0PUP2_PETMA/1-352           | CRCRIVI   | Q0VGI4_MOUSE/1-379     | LGARVQA  |
| K0Q6T9_ANOCA/1-393           | EQCRFAEA  |                        |          |
| K0Q1V9_SACKO/1-436           | CSCRIIT   |                        |          |
| K0Q5Z9_PETMA/1-397           | HEFRVQA   |                        |          |
| A0A1V4K4I9_PATFA/1-309       | RGARIQA   |                        |          |
| K0Q6T4_BRAFL/1-428           | CNCKMIM   |                        |          |
| A0A096NQRO_PAPAN/1-381       | LRARIQA   |                        |          |
| G3VZV5_SARHA/1-374           | LGRRVQA   |                        |          |
| F7F7Q7_MONDO/1-392           | HKLRVQA   |                        |          |
| A0A096NQO9_PAPAN/1-373       | LRARIQA   |                        |          |
| D2H842_AILME/1-379           | LRARVQA   |                        |          |
| H9GQ66_ANOCA/1-394           | DRYRAEA   |                        |          |
| A0A1U8CDQ0_MESAU/1-393       | LGARVQA   |                        |          |
| A0A151NUY4_ALLMI/1-423       | RGARVQA   |                        |          |
| M3Y1P4_MUSPF/1-379           | LGARVQA   |                        |          |
| A0A0B5CU22_CASFI/1-378       | LGARVQA   |                        |          |

Substrate      Cleavage  
Pn-----P4-P3-P2-P1# P1'-P2'-P3'-P4'-----Pm'

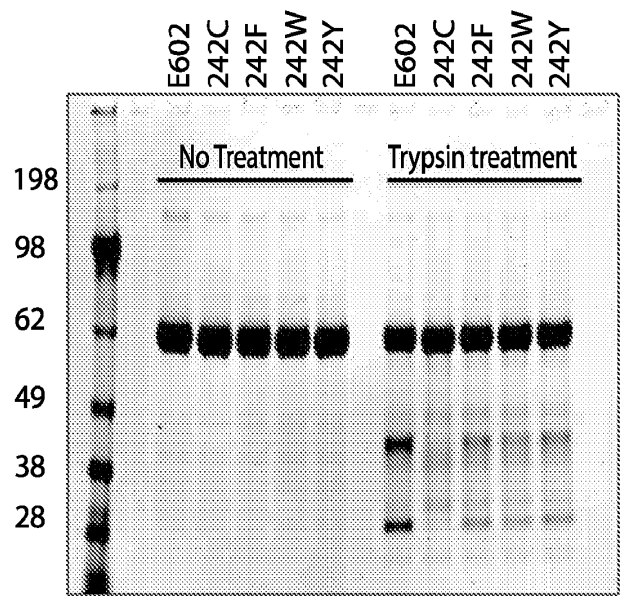
FIGURE 27A

SUBSTITUTE SHEET (RULE 26)

33/45  
Continued

|     |     | P2  |     | P1  | P1' |
|-----|-----|-----|-----|-----|-----|
| 240 | 241 | 242 | 243 | 244 | 245 |
| L   | R   | A   | R   | V   | Q   |
|     |     | C   |     |     |     |
|     |     |     | K   |     |     |
|     |     |     |     | I   |     |
|     |     |     |     | P   |     |
|     |     | C   |     | K   |     |
|     |     | R   |     | R   |     |
|     |     | R   |     | H   |     |
|     |     | T   |     | P   |     |
|     |     | Y   |     | P   |     |
|     |     | N   |     | P   |     |

FIGURE 27B



SDS PAGE reduced  
FIGURE 28A

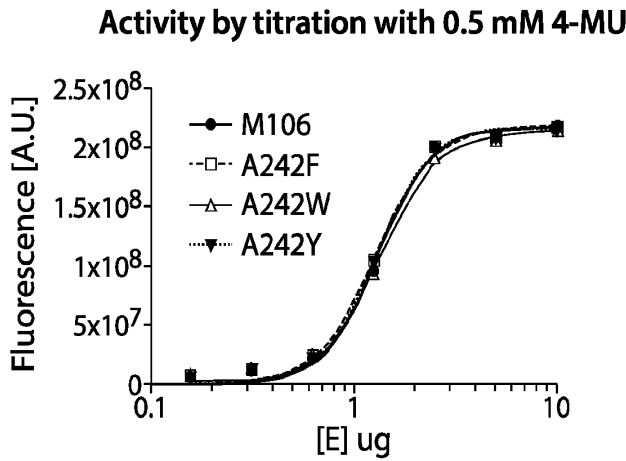


FIGURE 28B

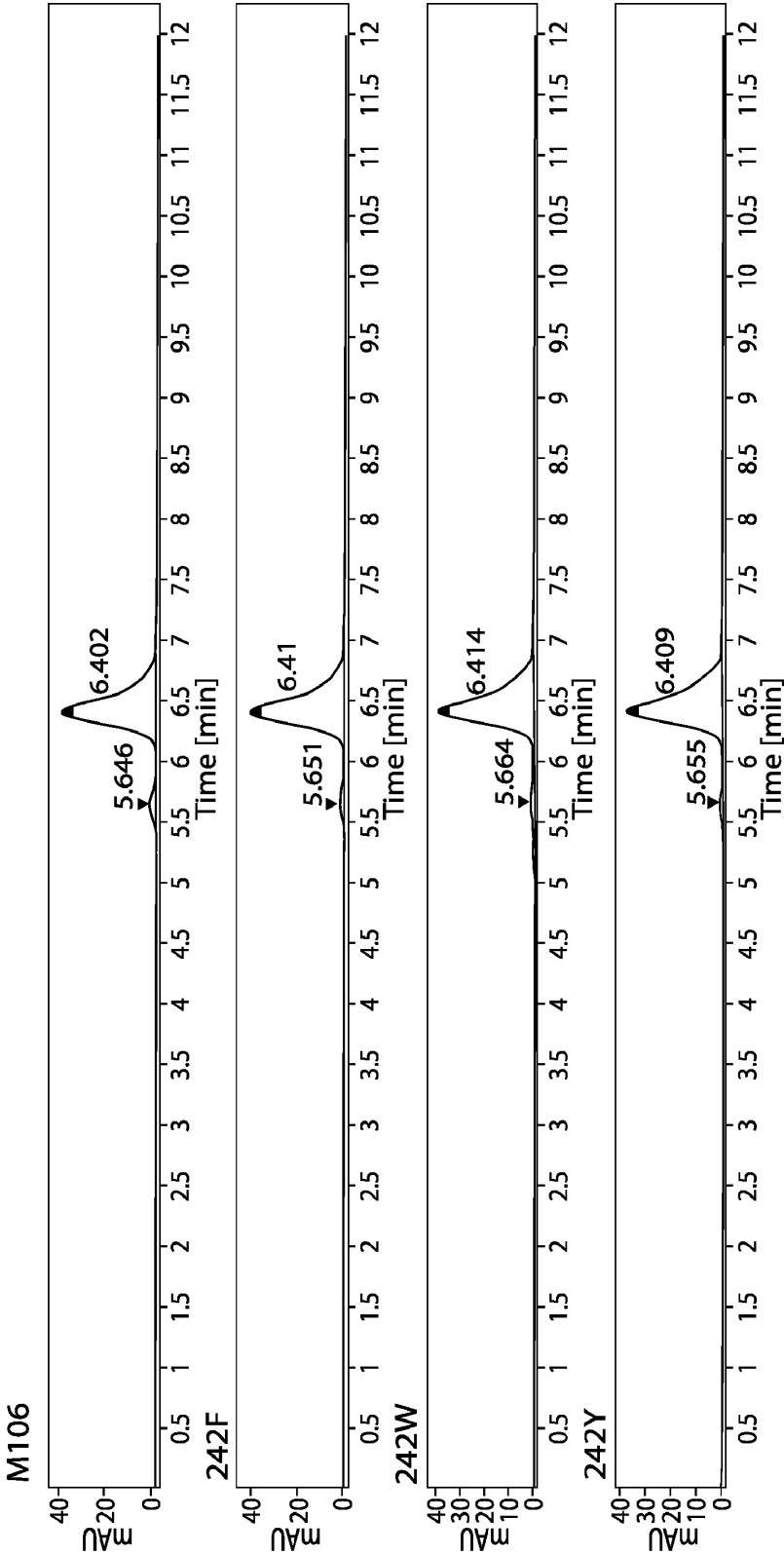


FIGURE 28C

36/45

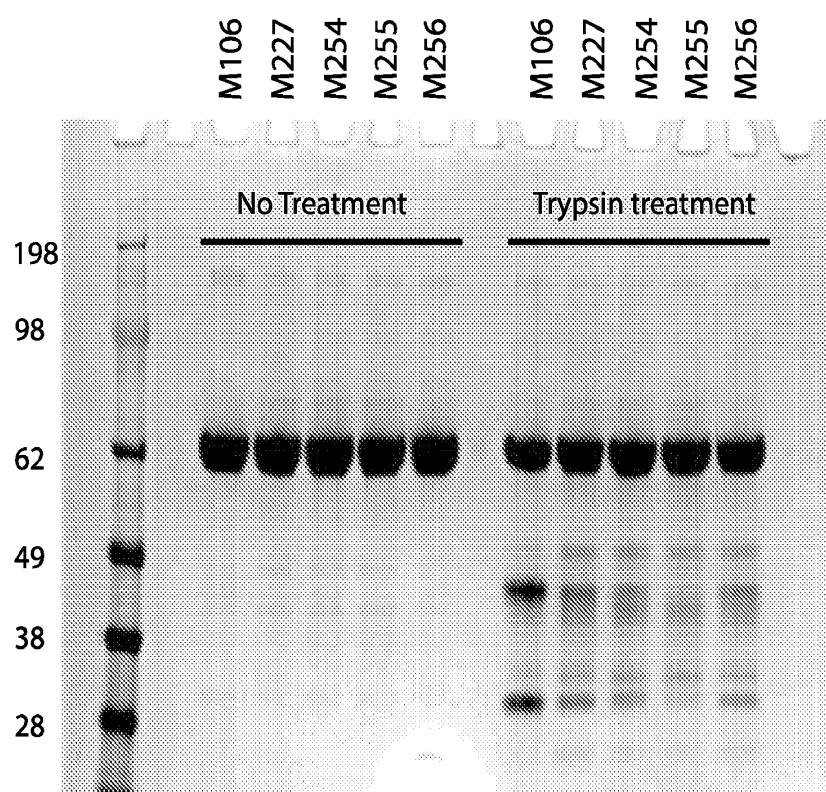


FIGURE 29

37/45

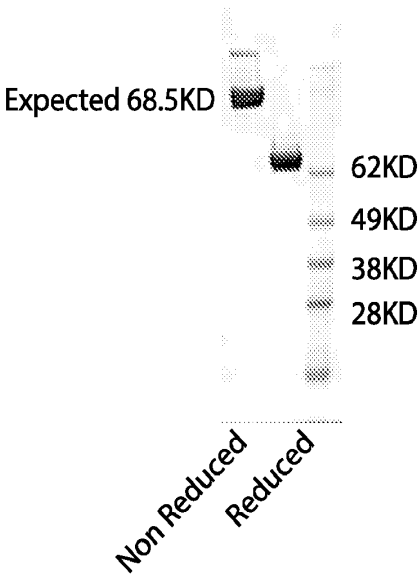


FIGURE 30A

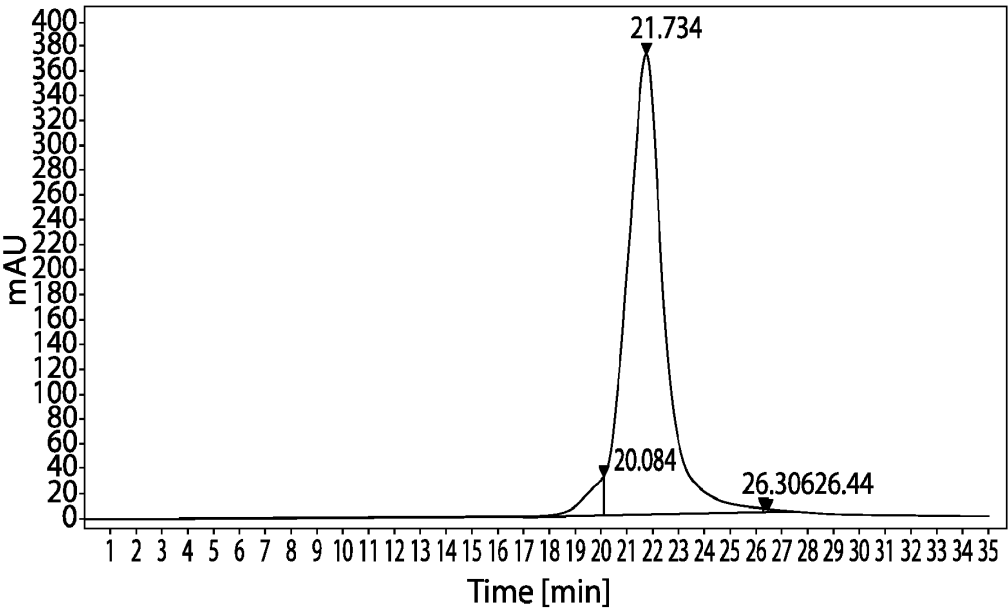


FIGURE 30B

38/45

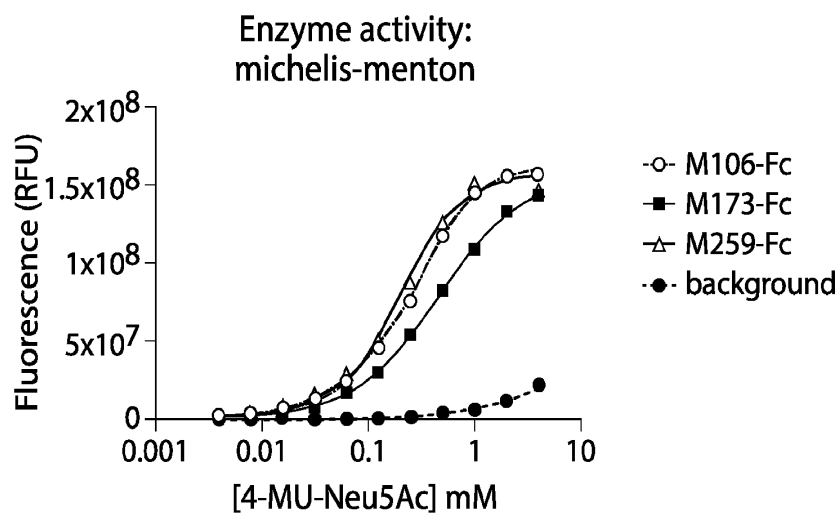


FIGURE 31A

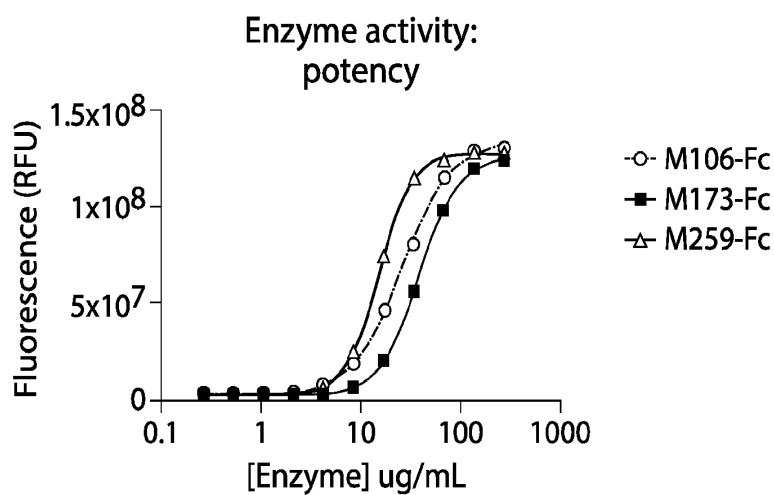


FIGURE 31B

39/45

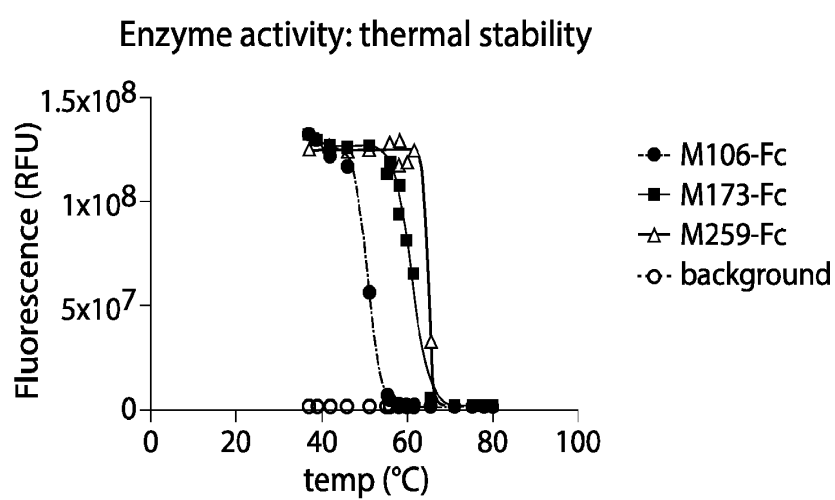


FIGURE 32

40/45

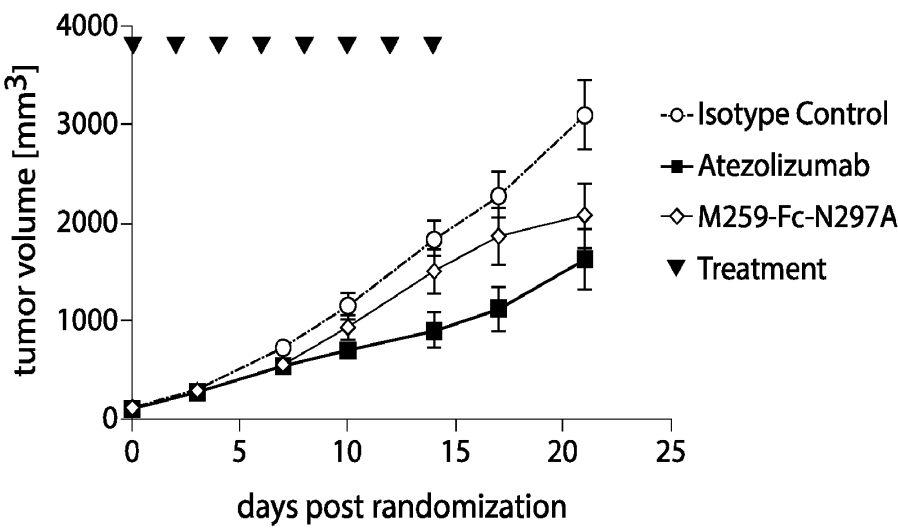


FIGURE 33A

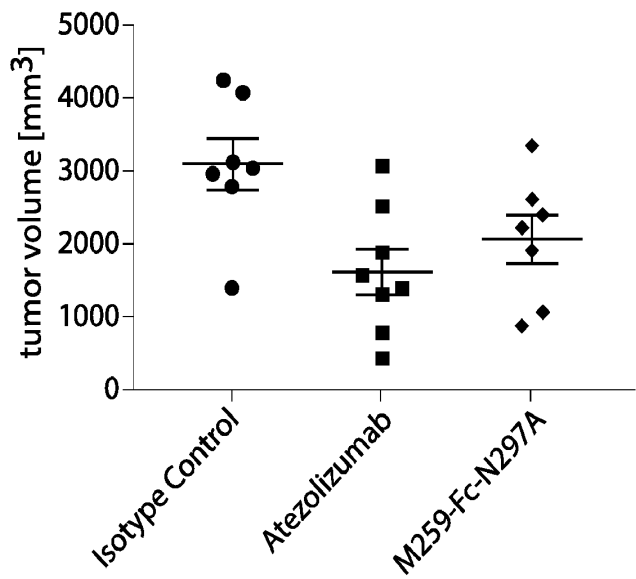


FIGURE 33B

41/45

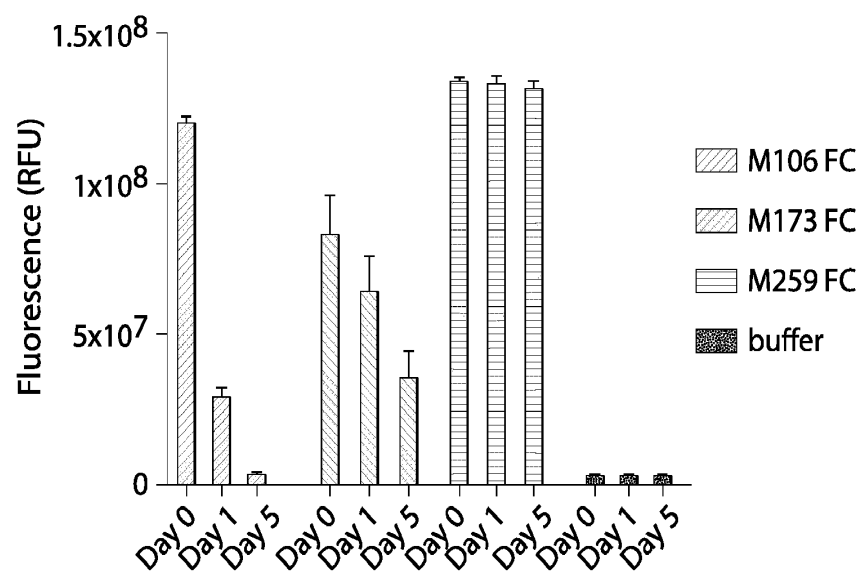


FIGURE 34

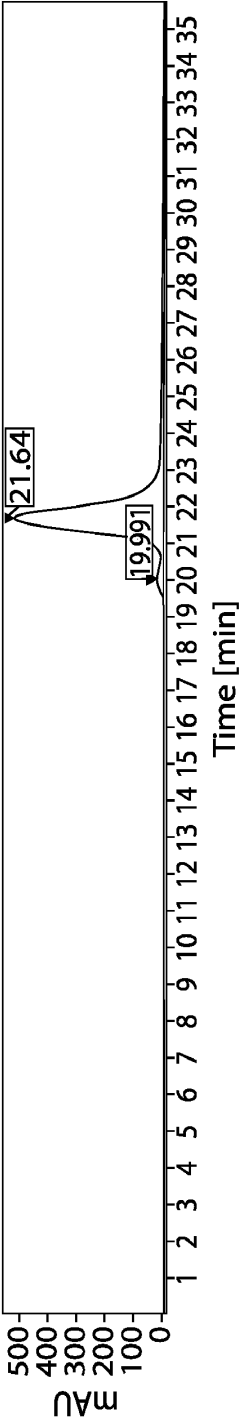


FIGURE 35

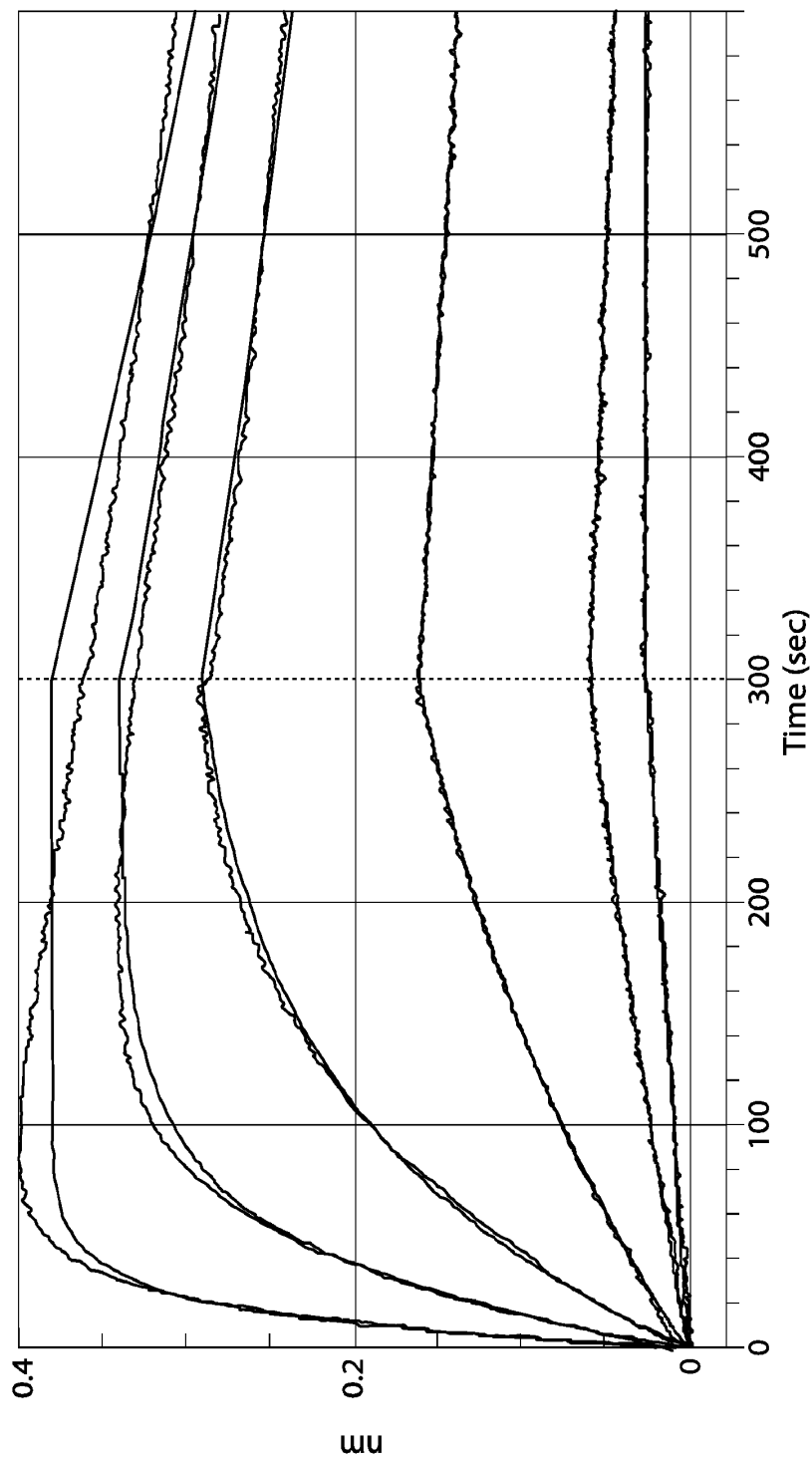


FIGURE 36

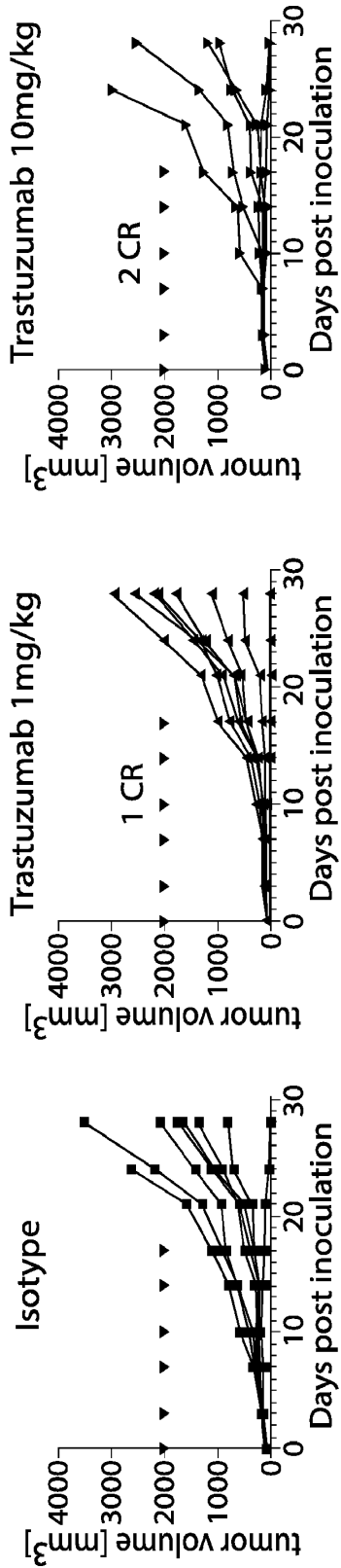


FIGURE 37A

FIGURE 37B

FIGURE 37C

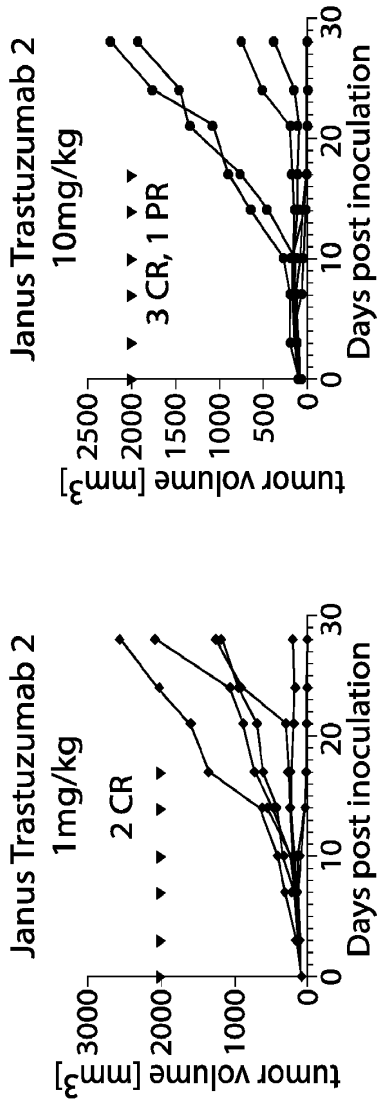


FIGURE 37D

FIGURE 37E

FIGURE 37F

45/45

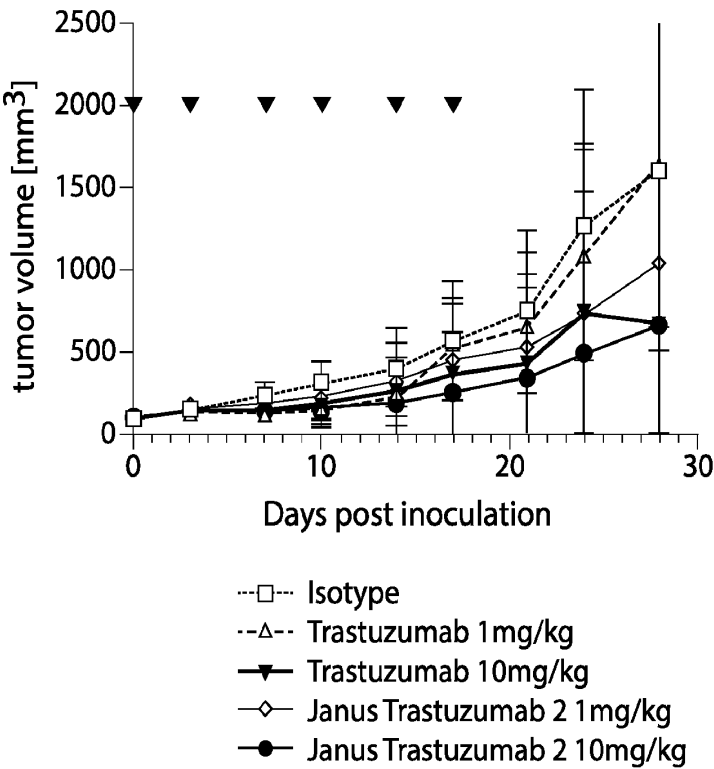


FIGURE 37F