Anti- CADM1 PTA021_A1 VH

V segment: 2-05
D segment: 6-6
J segment: JH5b

```
   Q   I   T   L   K   E   S   G   P   T   L   V   K   P   T   Q   T   L
 1 CAG ATC ACC TTG AAG GAG TCT GGT CCT ACG CTG GTG AAA CCC ACA CAG ACC CTC

                                                       CDR1
                                                   ~~~~~~~~~~~~~~~~~~~~~~~
   T   L   T   C   T   F   S   G   F   S   L   N   T   S   G   V   G   V
55 ACG CTG ACC TGC ACC TTC TCT GGG TTC TCA CTC AAT ACT AGT GGA GTG GGT GTG

   CDR1                                                            CDR2
   ~~~                                                          ~~~~~~~~~~~
   G   W   I   R   Q   P   P   G   K   A   L   E   W   L   A   L   I   Y
109 GGC TGG ATC CGT CAG CCC CCA GGA AAG GCC CTG GAG TGG CTT GCA CTC ATT TAT

                   CDR2
   ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   W   D   D   D   K   R   Y   S   P   S   L   K   S   R   L   T   I   T
163 TGG GAC GAT GAT AAG CGC TAC AGC CCA TCT CTG AAG AGC AGG CTC ACC ATC ACC

   K   D   T   S   K   N   Q   V   V   L   T   M   T   N   M   D   P   V
217 AAG GAC ACC TCC AAA AAC CAG GTG GTC CTT ACA ATG ACC AAC ATG GAC CCT GTG

                                           CDR3
                                   ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   D   T   A   T   Y   Y   C   A   H   R   R   V   E   W   V   A   L   A
271 GAC ACA GCC ACA TAT TAC TGT GCA CAC AGG AGA GTT GAA TGG GTC GCC CTG GCA

          CDR3
   ~~~~~~~~~~~~~~~~~~~~~~~~
   G   N   W   F   D   P   W   G   Q   G   T   L   V   T   V   S   S
325 GGG AAC TGG TTC GAC CCC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA
```

FIGURE 1A

Anti- CADM1 PTA021_A1 VK

V segment: L15
J segment: JK4

```
   D   I   Q   M   T   Q   S   P   S   S   L   S   A   S   V   G   D   R
 1 GAC ATC CAG ATG ACC CAG TCT CCA TCC TCA CTG TCT GCA TCT GTA GGA GAC AGA

                             CDR1
                     ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   V   T   I   T   C   R   A   S   Q   G   I   S   S   W   L   A   W   Y
55 GTC ACC ATC ACT TGT CGG GCG AGT CAG GGT ATT AGC AGC TGG TTA GCC TGG TAT

                                                         CDR2
                                                 ~~~~~~~~~~~~~~~~~~~
   Q   Q   K   P   E   K   A   P   K   S   L   I   Y   G   A   S   S   L
109 CAG CAG AAA CCA GAG AAA GCC CCT AAG TCC CTG ATC TAT GGT GCA TCC AGT TTG

    CDR2
    ~~~~~~~
   Q   S   G   V   P   S   R   F   S   G   S   G   S   G   T   D   F   T
163 CAA AGT GGG GTC CCA TCA AGG TTC AGC GGC AGT GGA TCT GGG ACA GAT TTC ACT

                                                                 CDR3
                                                                 ~~~~~~~
   L   T   I   S   N   L   Q   P   E   D   F   A   T   Y   Y   C   Q   Q
217 CTC ACC ATC AGC AAC CTG CAG CCT GAA GAT TTT GCA ACT TAT TAC TGC CAA CAG

            CDR3
    ~~~~~~~~~~~~~~~~~~~~~~~~~~
   Y   N   S   Y   P   L   T   F   G   G   G   T   K   V   E   I   K
271 TAT AAT AGT TAC CCT CTC ACT TTC GGC GGA GGG ACC AAG GTG GAG ATC AAA
```

FIGURE 1B

Anti- CADM1 PTA021_A2 VH

V segment: 2-05
D segment: 6-6
J segment: JH5b

```
    Q   I   T   L   K   E   S   G   P   T   L   V   K   P   T   Q   T   L
  1 CAG ATC ACC TTG AAG GAG TCT GGT CCT ACG CTG GTG AAA CCC ACA CAG ACC CTC

                                                        CDR1
                                                ~~~~~~~~~~~~~~~~~~~~~~~~
    T   L   T   C   T   F   S   G   F   S   L   S   T   S   G   V   G   V
 55 ACG CTG ACC TGC ACC TTC TCT GGG TTC TCA CTC AGC ACT AGT GGA GTG GGT GTG

    CDR1                                                            CDR2
    ~~~                                                             ~~~~~~~~~~~~
    G   W   I   R   Q   P   P   G   K   A   L   E   W   L   A   L   I   Y
109 GGC TGG ATC CGT CAG CCC CCA GGA AAG GCC CTG GAG TGG CTT GCA CTC ATT TAT

                    CDR2
    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
    W   D   D   D   K   R   Y   S   P   S   L   K   S   R   L   T   I   T
163 TGG GAT GAT GAT AAG CGC TAC AGC CCA TCT CTG AAG AGC AGG CTC ACC ATC ACC

    K   D   T   S   K   N   Q   V   V   L   T   M   T   N   M   D   P   V
217 AAG GAC ACC TCC AAA AAC CAG GTG GTC CTT ACA ATG ACC AAC ATG GAC CCT GTG

                                                CDR3
                                ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
    D   T   A   I   Y   Y   C   A   H   R   R   V   E   W   F   A   L   A
271 GAC ACA GCC ATA TAT TAC TGT GCG CAC AGG AGA GTT GAG TGG TTC GCC CTG GCA

            CDR3
    ~~~~~~~~~~~~~~~~~~~~~~~~
    G   N   W   F   D   P   W   G   Q   G   S   L   V   T   V   S   S
325 GGG AAC TGG TTC GAC CCC TGG GGC CAG GGA TCC CTG GTC ACC GTC TCC TCA
```

FIGURE 2A

Anti- CADM1 PTA021_A2 VK

V segment: L15
J segment: JK4

```
   D   I   Q   M   T   Q   S   P   S   S   L   S   A   S   V   G   D   R
 1 GAC ATC CAG ATG ACC CAG TCT CCA TCC TCA CTG TCT GCA TCT GTA GGA GAC AGA

                             CDR1
                     ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   V   T   I   T   C   R   A   S   Q   G   I   S   S   W   L   A   W   Y
55 GTC ACC ATC ACT TGT CGG GCG AGT CAG GGT ATT AGC AGC TGG TTA GCC TGG TAT

                                                         CDR2
                                                 ~~~~~~~~~~~~~~~~~~~
   Q   Q   K   P   E   K   A   P   K   S   L   I   Y   A   A   S   S   L
109 CAG CAG AAA CCA GAG AAA GCC CCT AAG TCC CTG ATC TAT GCT GCA TCC AGT TTG

    CDR2
    ~~~~~~~
   Q   S   G   V   P   S   R   F   S   G   S   G   S   G   T   D   F   T
163 CAA AGT GGG GTC CCA TCA AGG TTC AGC GGC AGT GGA TCT GGG ACA GAT TTC ACT

                                                                 CDR3
                                                                 ~~~~~~~
   L   T   I   S   S   L   Q   P   E   D   F   A   T   Y   Y   C   Q   Q
217 CTC ACC ATC AGC AGC CTG CAG CCT GAA GAT TTT GCA ACT TAT TAC TGC CAA CAG

            CDR3
    ~~~~~~~~~~~~~~~~~~~~~~~~~~
   Y   N   S   Y   P   L   T   F   G   G   G   T   K   V   E   I   K
271 TAT AAT AGT TAC CCT CTC ACT TTC GGC GGA GGG ACC AAG GTG GAG ATC AAA
```

FIGURE 2B

Anti- CADM1 PTA021_A3 VH

V segment: 2-05
D segment: 6-6
J segment: JH5b

```
   Q   I   T   L   K   E   S   G   P   T   L   V   K   P   T   Q   T   L
 1 CAG ATC ACC TTG AAG GAG TCT GGT CCT ACG CTG GTG AAA CCC ACA CAG ACC CTC

                                                          CDR1
                                                ~~~~~~~~~~~~~~~~~~~~~~~~
   T   L   T   C   T   F   S   G   F   S   L   S   T   S   G   V   G   V
55 ACG CTG ACC TGC ACC TTC TCT GGG TTC TCA CTC AGT ACT AGT GGA GTG GGT GTG

   CDR1                                                           CDR2
   ~~~                                                            ~~~~~~~~~~~
   G   W   I   R   Q   P   P   G   K   A   L   E   W   L   A   L   I   Y
109 GGC TGG ATC CGT CAG CCC CCA GGA AAG GCC CTG GAG TGG CTT GCA CTC ATT TAT

                    CDR2
   ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   W   D   D   D   K   R   Y   S   P   S   L   K   S   R   L   T   I   T
163 TGG GAC GAT GAT AAG CGC TAC AGC CCA TCT CTG AAG AGC AGG CTC ACC ATC ACC

   K   D   T   S   K   N   Q   V   V   L   T   M   T   N   M   D   P   V
217 AAG GAC ACC TCC AAA AAC CAG GTG GTC CTT ACA ATG ACC AAC ATG GAC CCT GTG

                                                  CDR3
                                    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   D   T   A   T   Y   Y   C   A   H   R   R   V   E   W   V   T   L   A
271 GAC ACA GCC ACA TAT TAC TGT GCA CAC AGG AGA GTT GAG TGG GTC ACC CTG GCA

          CDR3
   ~~~~~~~~~~~~~~~~~~~~~~~~
   G   N   W   F   D   P   W   G   Q   G   T   L   V   T   V   S   S
325 GGG AAC TGG TTC GAC CCC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA
```

FIGURE 3A

Anti- CADM1 PTA021_A3 VK

V segment: L15
J segment: JK4

```
    D   I   Q   M   T   Q   S   P   S   S   L   S   A   S   V   G   D   R
  1 GAC ATC CAG ATG ACC CAG TCT CCA TCC TCA CTG TCT GCA TCT GTA GGA GAC AGA

                                CDR1
                        ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
    V   T   I   T   C   R   A   S   Q   G   I   S   S   W   L   A   W   Y
 55 GTC ACC ATC ACT TGT CGG GCG AGT CAG GGT ATT AGC AGC TGG TTA GCC TGG TAT

                                                            CDR2
                                                    ~~~~~~~~~~~~~~~~~~~
    Q   Q   K   P   E   K   A   P   K   S   L   I   Y   A   A   S   S   L
109 CAG CAG AAA CCA GAG AAA GCC CCT AAG TCC CTG ATC TAT GCT GCA TCC AGT TTG

    CDR2
    ~~~~~~~
    Q   S   G   V   P   S   R   F   S   G   S   G   S   G   T   D   F   T
163 CAA AGT GGG GTC CCA TCA AGG TTC AGC GGC AGT GGA TCT GGG ACA GAT TTC ACT

                                                                    CDR3
                                                                    ~~~~~~~
    L   T   I   S   N   L   Q   P   E   D   F   A   T   Y   Y   C   Q   Q
217 CTC ACC ATC AGC AAC CTG CAG CCT GAA GAT TTT GCA ACT TAT TAC TGC CAA CAG

            CDR3
    ~~~~~~~~~~~~~~~~~~~~~~~~~~~
    Y   N   S   Y   P   L   T   F   G   G   G   T   K   V   E   I   K
271 TAT AAT AGT TAC CCT CTC ACT TTC GGC GGA GGG ACC AAG GTG GAG ATC AAA
```

FIGURE 3B

Anti- CADM1 PTA021_A1 VH

```
2-05 germline     Q I T L K E S G P T L V K P T Q T L
PTA021_A1 VH      - - - - - - - - - - - - - - - - - -

                                        _CDR1_______
2-05 germline     T L T C T F S G F S L S T S G V G V
PTA021_A1 VH      - - - - - - - - - - - N - - - - - -

                  _                               _CDR2
2-05 germline     G W I R Q P P G K A L E W L A L I Y
PTA021_A1 VH      - - - - - - - - - - - - - - - - - -

                  CDR2_________________________
2-05 germline     W N D D K R Y S P S L K S R L T I T
PTA021_A1 VH      - D - - - - - - - - - - - - - - - -

2-05 germline     K D T S K N Q V V L T M T N M D P V
PTA021_A1 VH      - - - - - - - - - - - - - - - - - -

                                    _CDR3_____________
2-05 germline     D T A T Y Y C A H R
PTA021_A1 VH      - - - - - - - - - - R V E W V A L A

                  ____________
JH5b germline       N W F D P W G Q G T L V T V S S
PTA021_A1 VH      G - - - - - - - - - - - - - - - -
```

FIGURE 4

Anti- CADM1 PTA021_A2 VH

```
2-05 germline    Q I T L K E S G P T L V K P T Q T L
PTA021_A2 VH     - - - - - - - - - - - - - - - - - -

                                          _CDR1_______
2-05 germline    T L T C T F S G F S L S T S G V G V
PTA021_A2 VH     - - - - - - - - - - - - - - - - - -

                 _                                _CDR2
2-05 germline    G W I R Q P P G K A L E W L A L I Y
PTA021_A2 VH     - - - - - - - - - - - - - - - - - -

                 CDR2_____________________________
2-05 germline    W N D D K R Y S P S L K S R L T I T
PTA021_A2 VH     - D - - - - - - - - - - - - - - - -


2-05 germline    K D T S K N Q V V L T M T N M D P V
PTA021_A2 VH     - - - - - - - - - - - - - - - - - -

                                    _CDR3____________
2-05 germline    D T A T Y Y C A H R
PTA021_A2 VH     - - - I - - - - - - R V E W F A L A

                 ___CDR3_____
JH5b germline      N W F D P W G Q G T L V T V S S
PTA021_A2 VH     G - - - - - - - - - S - - - - - -
```

FIGURE 5

Anti- CADM1 PTA021_A3 VH

```
2-05 germline      Q I T L K E S G P T L V K P T Q T L
PTA021_A3 VH       - - - - - - - - - - - - - - - - - -

                                          _CDR1______
2-05 germline      T L T C T F S G F S L S T S G V G V
PTA021_A3 VH       - - - - - - - - - - - - - - - - - -

                   _                              _CDR2
2-05 germline      G W I R Q P P G K A L E W L A L I Y
PTA021_A3 VH       - - - - - - - - - - - - - - - - - -

                   CDR2_________________________
2-05 germline      W N D D K R Y S P S L K S R L T I T
PTA021_A3 VH       - D - - - - - - - - - - - - - - - -

2-05 germline      K D T S K N Q V V L T M T N M D P V
PTA021_A3 VH       - - - - - - - - - - - - - - - - - -

                                    _CDR3____________
2-05 germline      D T A T Y Y C A H R
PTA021_A3 VH       - - - - - - - - - - R V E W V T L A

                   _CDR3_______
JH5b germline        N W F D P W G Q G T L V T V S S
PTA021_A3 VH       G - - - - - - - - - - - - - - - -
```

FIGURE 6

Anti- CADM1 PTA021_A1 VK

```
_CDR1___________
L15 germline     D I Q M T Q S P S S L S A S V G D R V T I T C R A
S Q G I S S
PTA021_A1 VK     - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

                 _____                                  _CDR2_________
L15 germline     W L A W Y Q Q K P E K A P K S L I Y A A S S L Q S
G V P S R F
PTA021_A1 VK     - - - - - - - - - - - - - - - - - - G - - - - - -
- - - - - -

_CDR3____
L15 germline     S G S G S G T D F T L T I S S L Q P E D F A T Y Y
C Q Q Y N S
PTA021_A1 VK     - - - - - - - - - - - - - - - N - - - - - - - - -
- - - - - -

                 _______
L15 germline     Y P
JK4 germline         L T F G G G T K V E I K
PTA021_A1 VK     - - - - - - - - - - - - - - -
```

FIGURE 7

Anti- CADM1 PTA021_A2 VK



FIGURE 8

Anti- CADM1 PTA021_A3 VK

```
_CDR1___________
L15 germline      D I Q M T Q S P S S L S A S V G D R V T I T C R A
S Q G I S S
PTA021_A3 VK      - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

                  _____                                  _CDR2_____
L15 germline      W L A W Y Q Q K P E K A P K S L I Y A A S S L Q S
G V P S R F
PTA021_A3 VK      - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

_CDR3____
L15 germline      S G S G S G T D F T L T I S S L Q P E D F A T Y Y
C Q Q Y N S
PTA021_A3 VK      - - - - - - - - - - - - - - - N - - - - - - - - -
- - - - - -

                  _______
L15 germline      Y P
JK4 germline          L T F G G G T K V E I K
PTA021_A3 VK      - - - - - - - - - - - - - - -
```

FIGURE 9

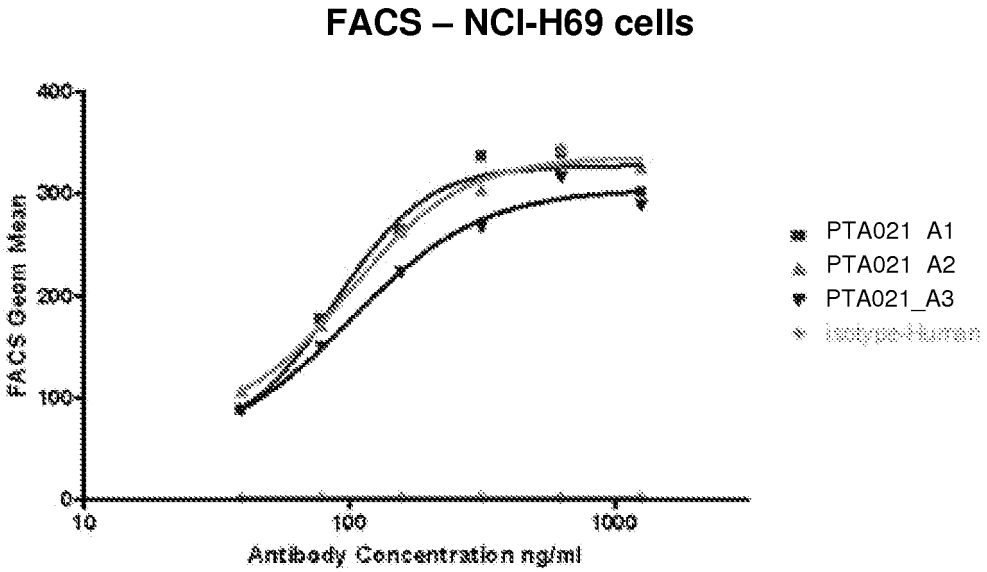


FIGURE 10

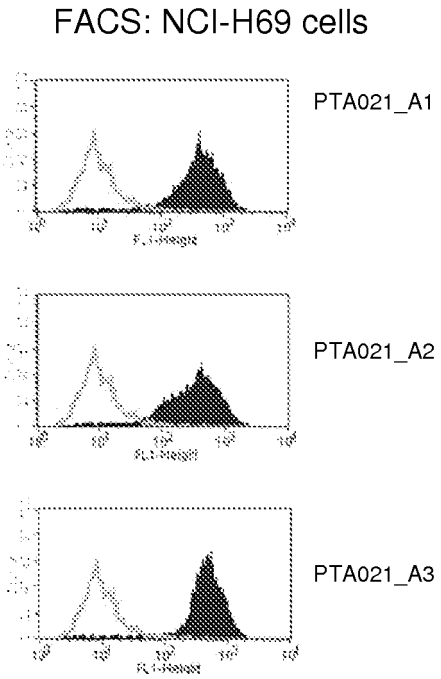


FIGURE 11A

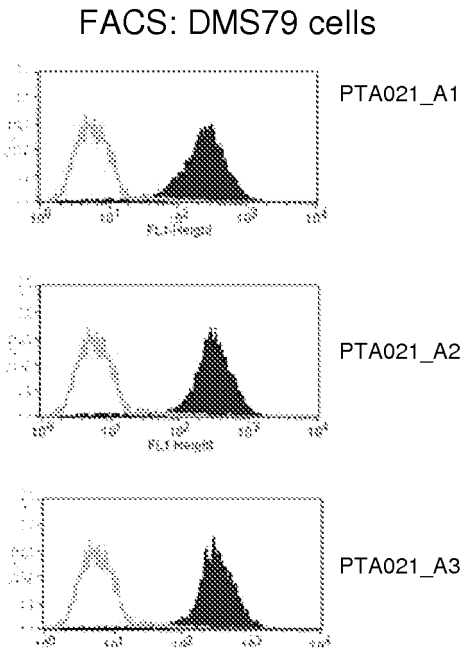


FIGURE 11B

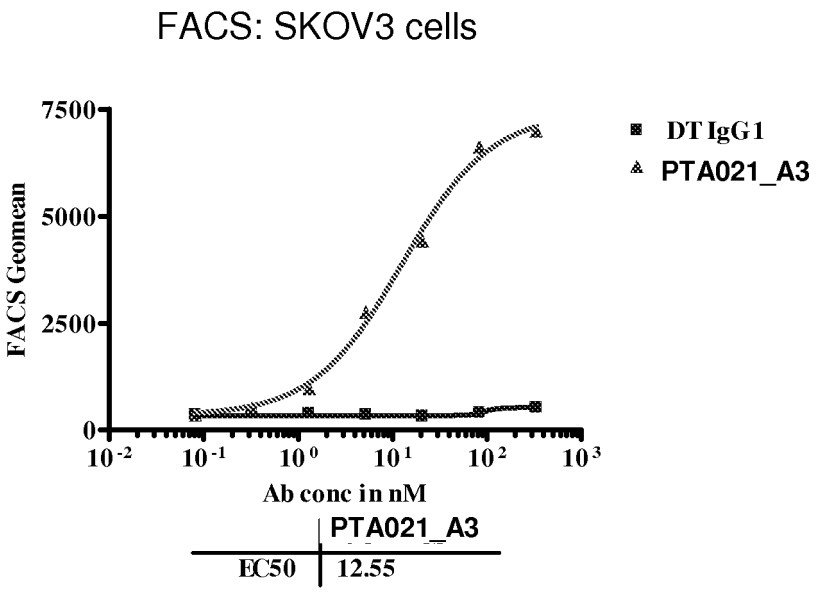


FIGURE 12

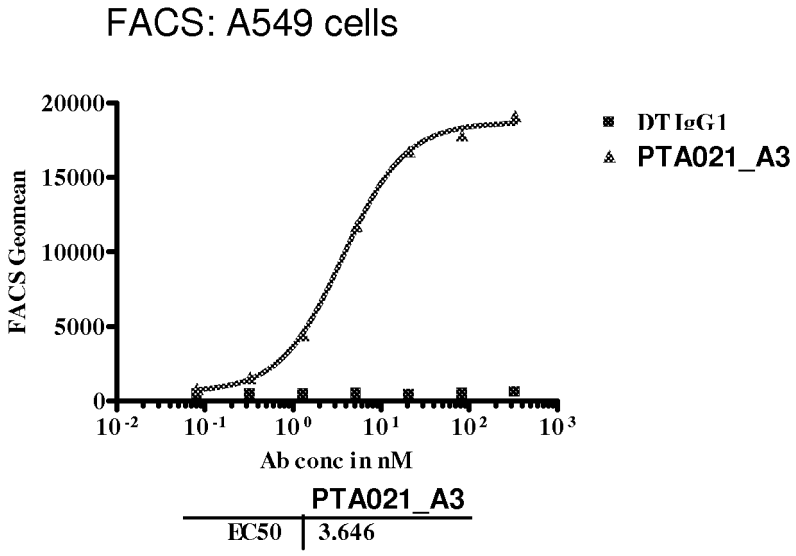


FIGURE 13

FACS: 786-O, RCC & SkMel28, Melanoma cell lines

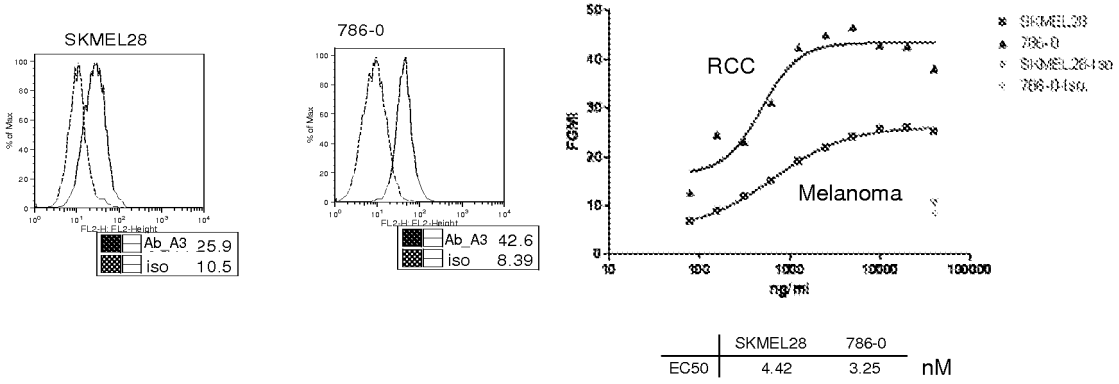


FIGURE 14

FACS: PTA021_A3 (NF) in NCI-H69 and DMS79 cells

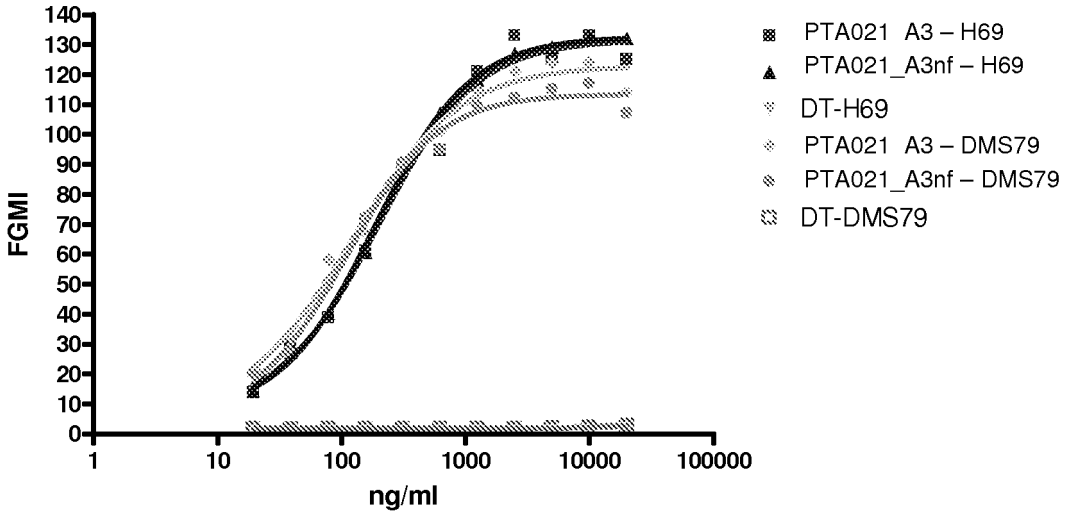


FIGURE 15

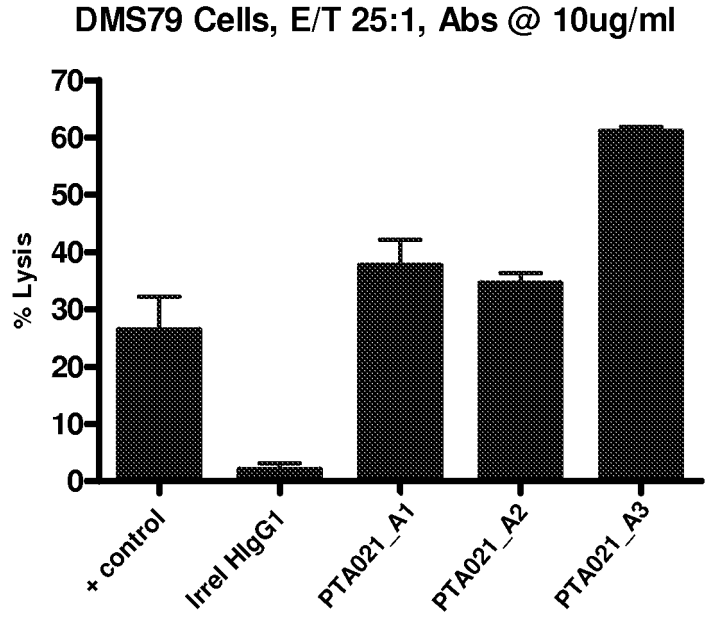


FIGURE 16A

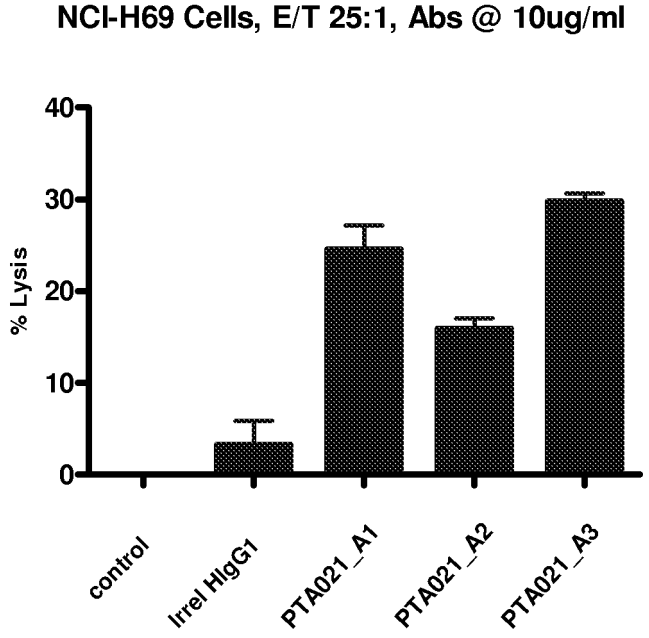
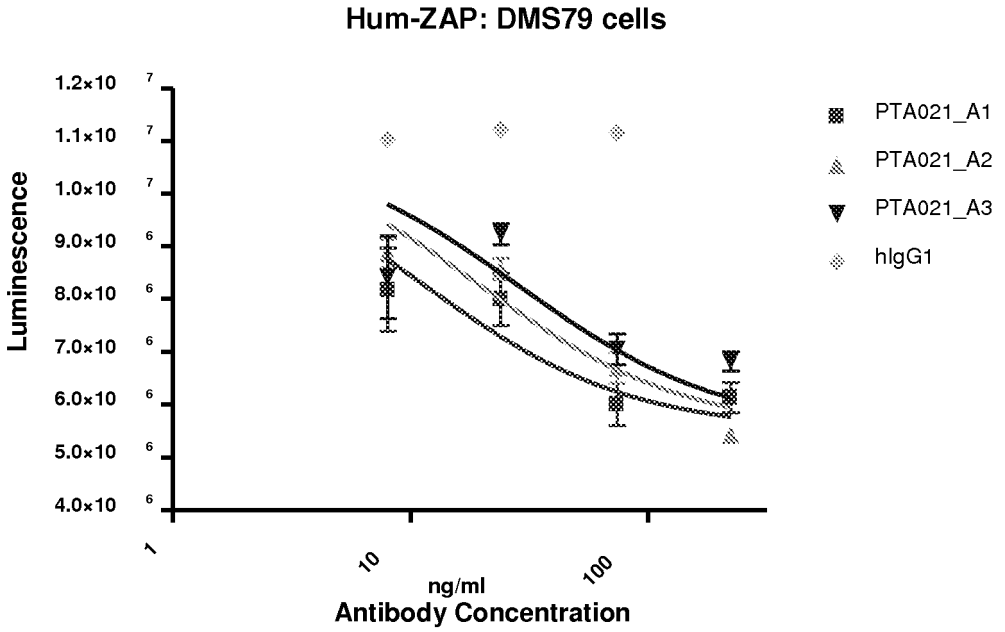


FIGURE 16B



	1C7	2G7	6G11
EC50	11.62	19.89	28.70

FIGURE 17A

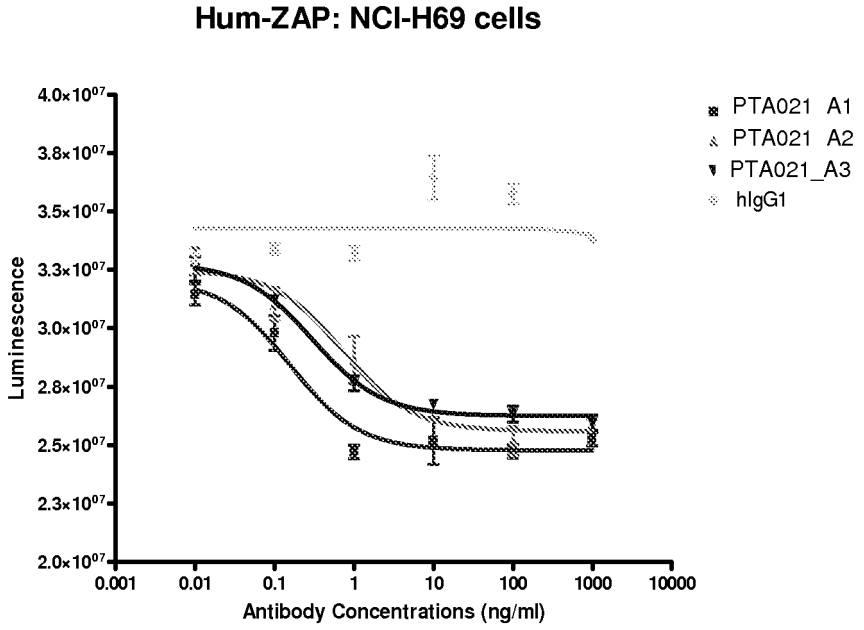


FIGURE 17B

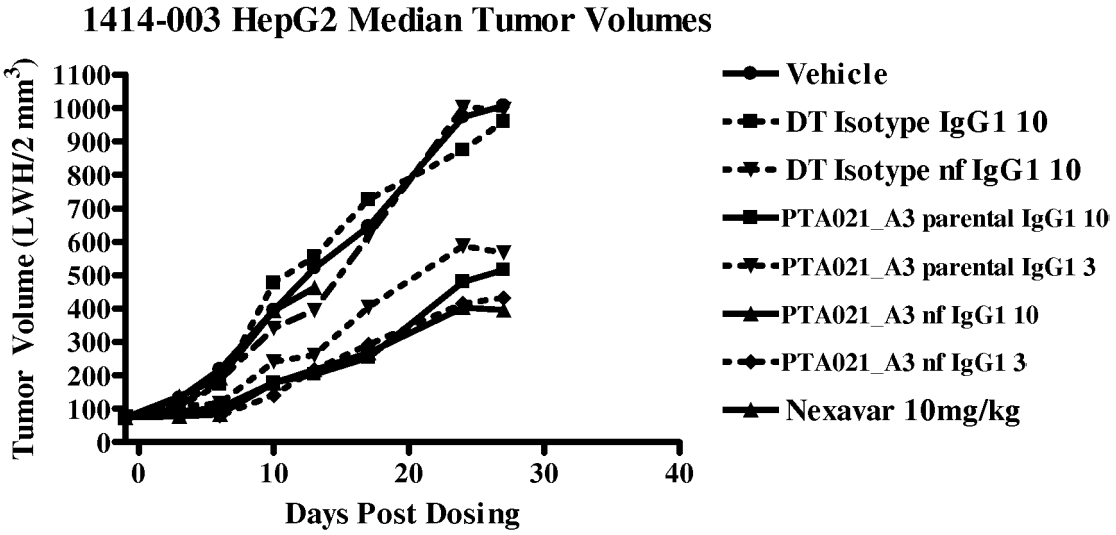


FIGURE 18

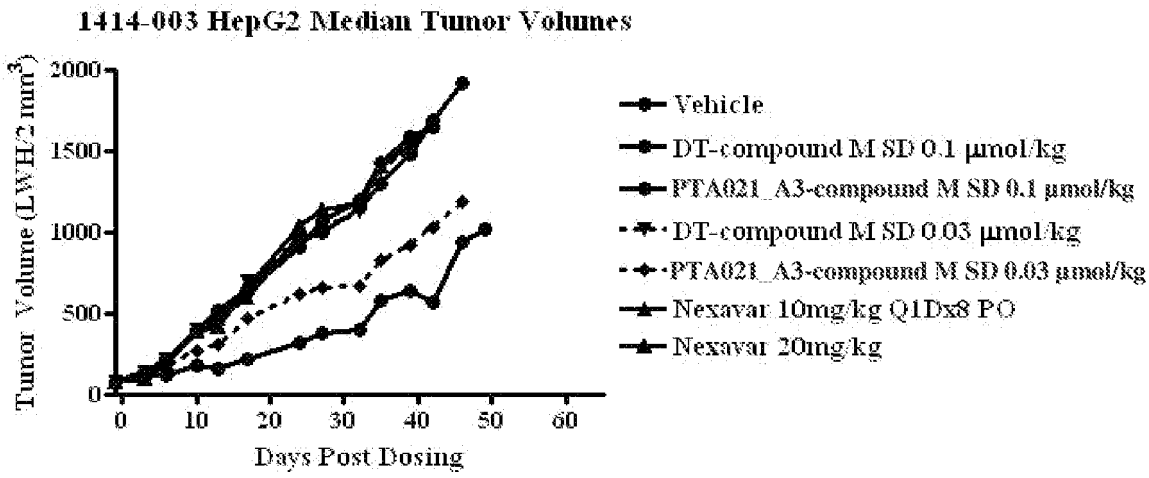


FIGURE 19

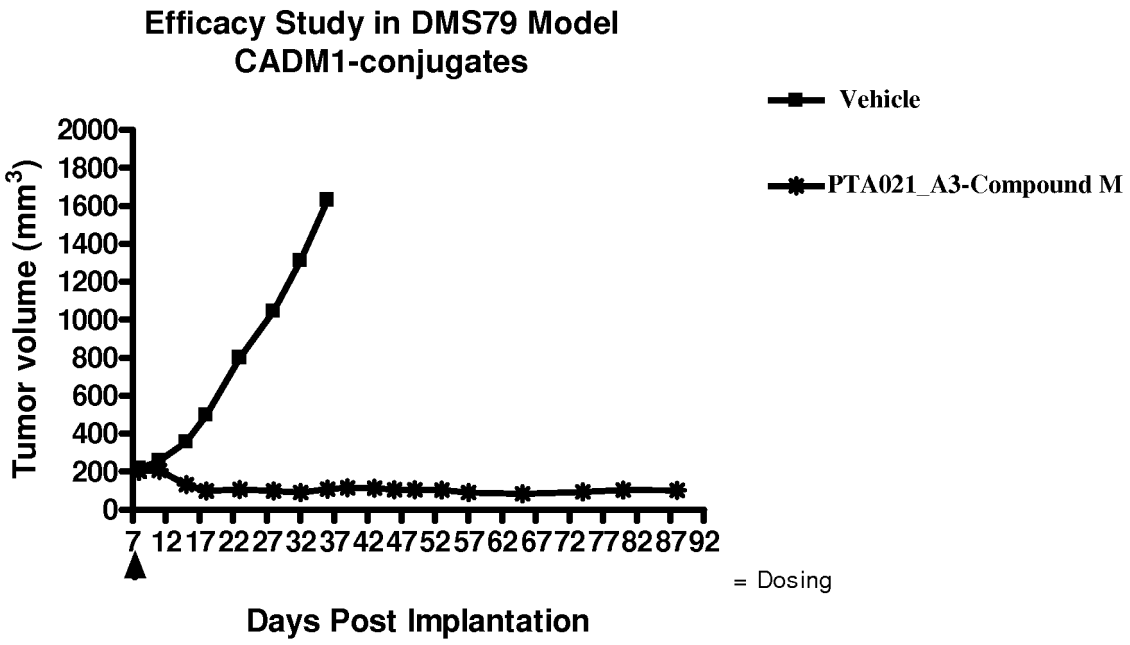


FIGURE 20A

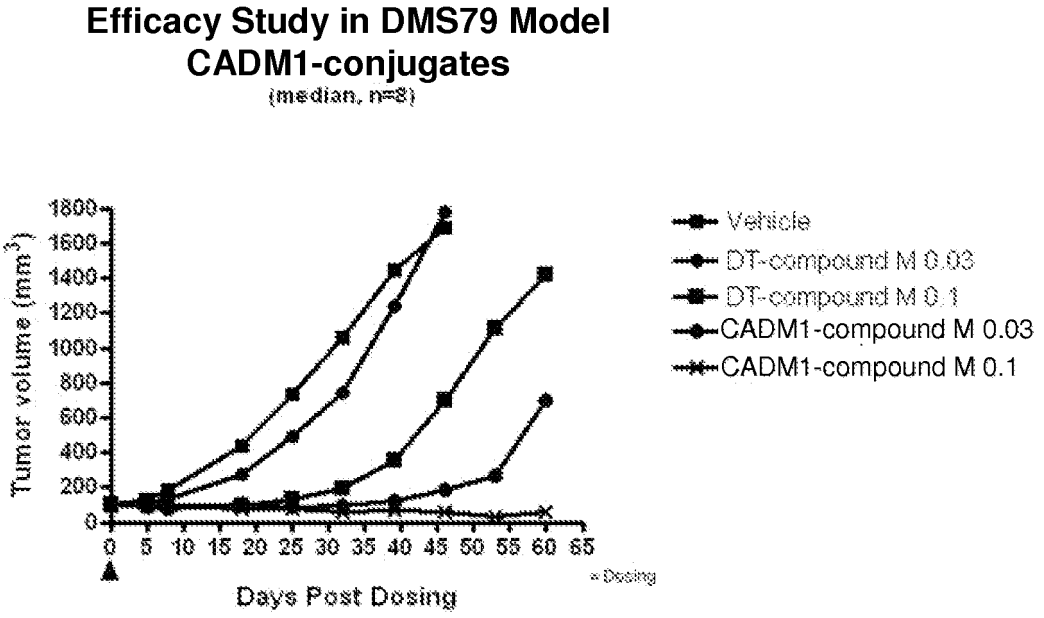
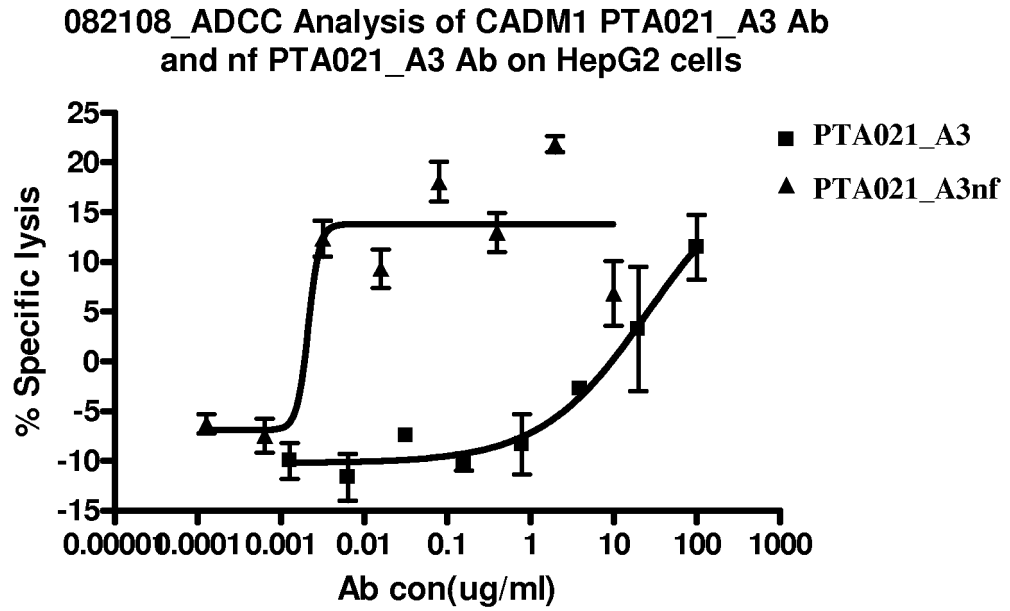


FIGURE 20B



	PTA021_A3	PTA021_A3nf
EC50	25.85	0.002141

FIGURE 21

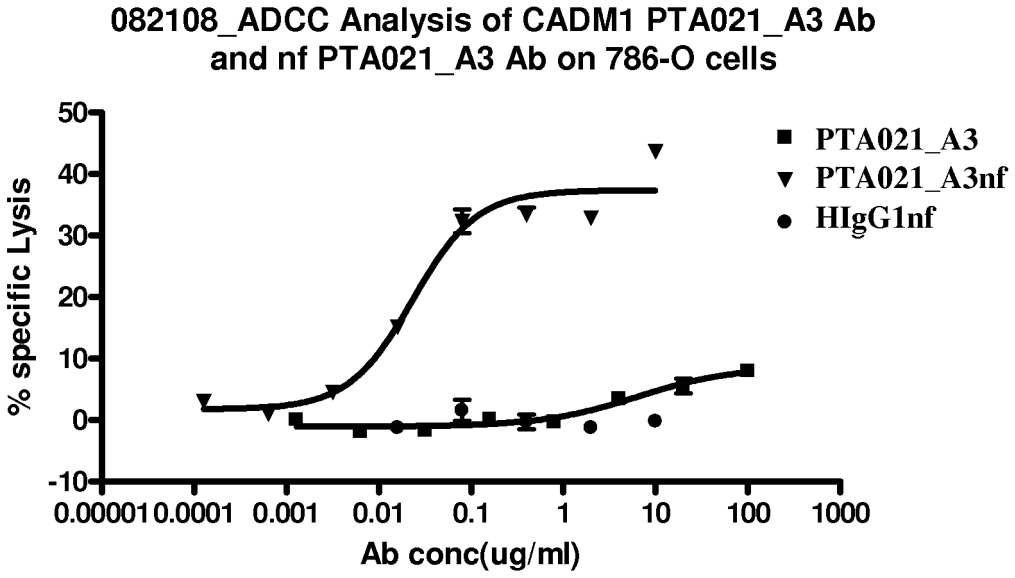


FIGURE 22

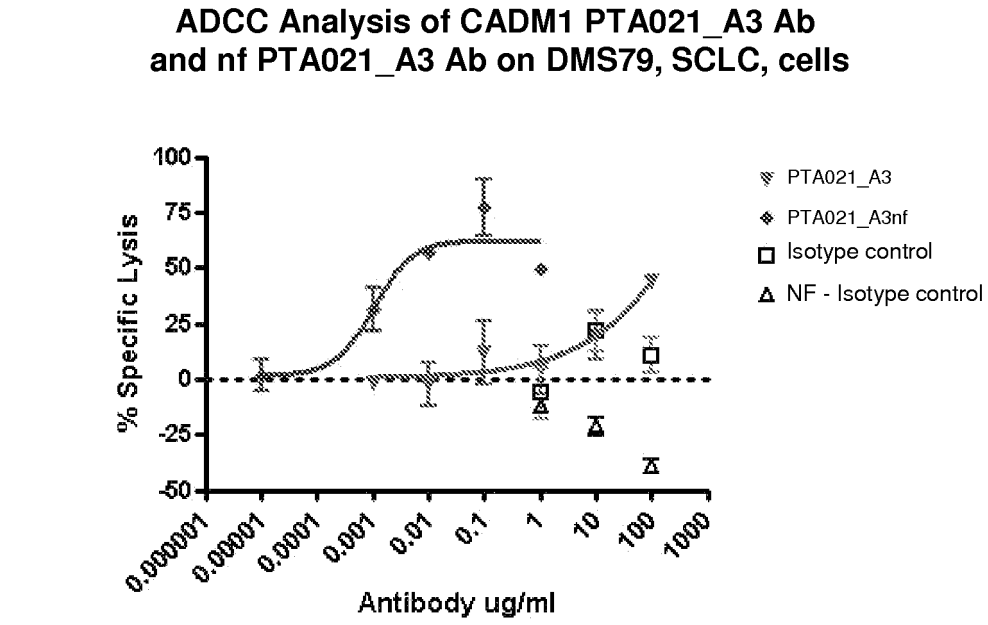


FIGURE 23

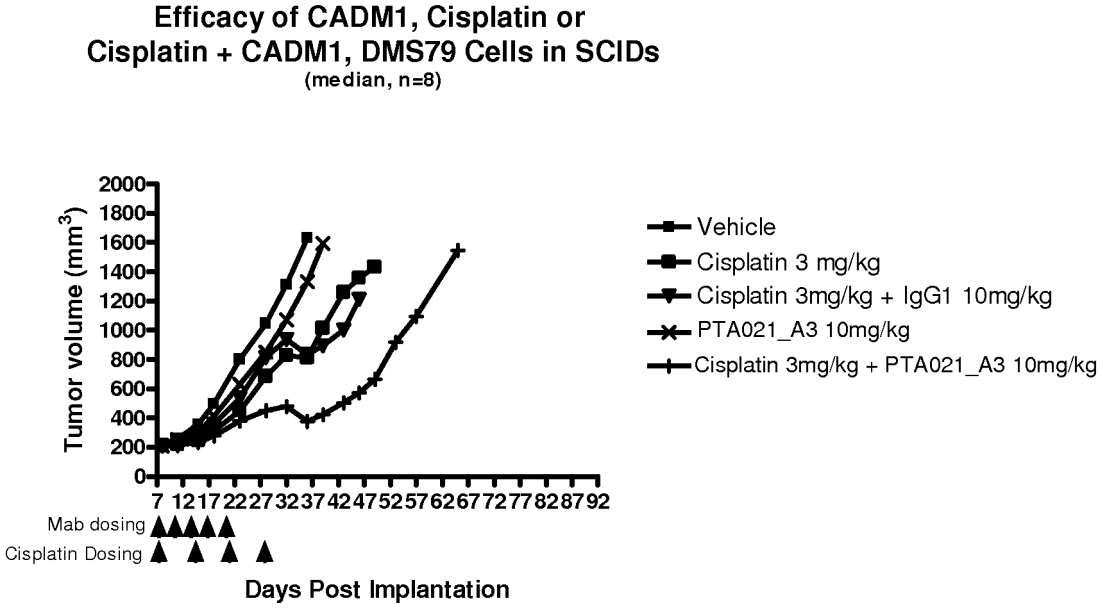


FIGURE 24

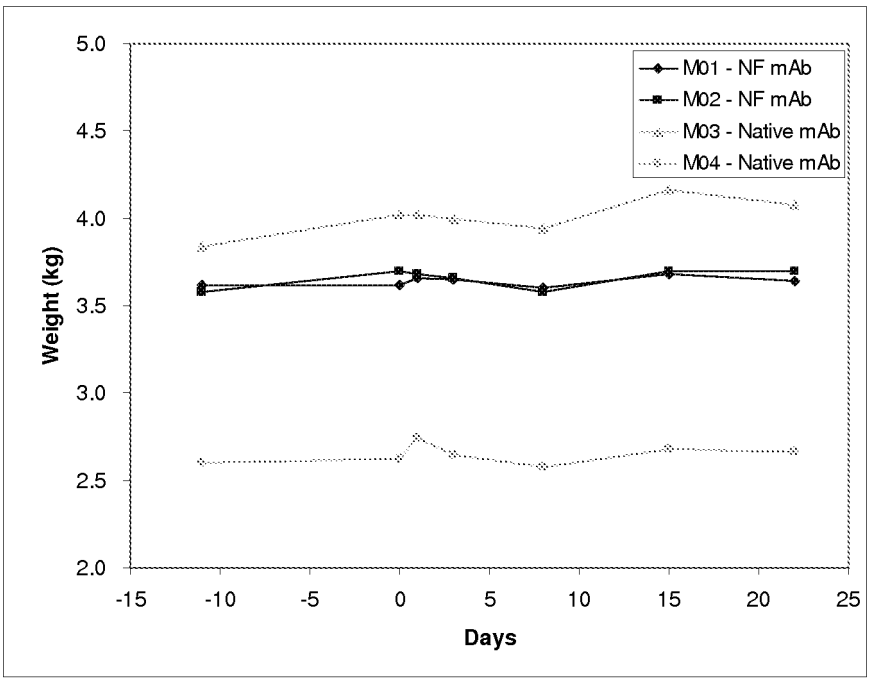


FIGURE 25A

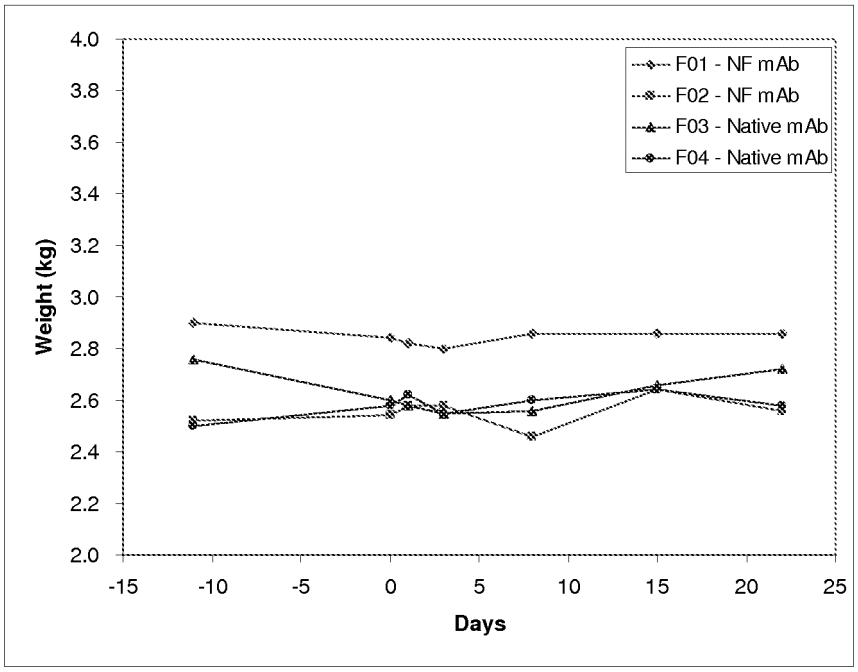


FIGURE 25B

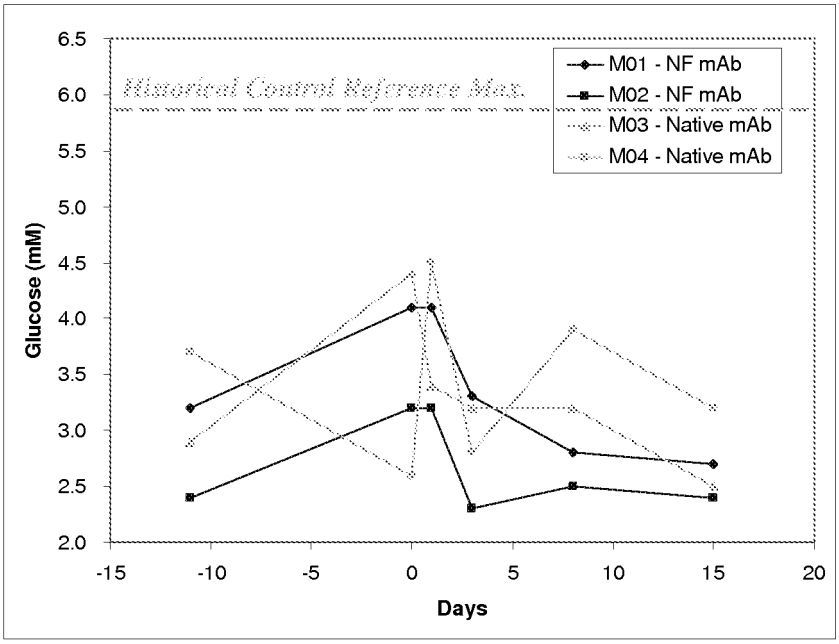


FIGURE 26A

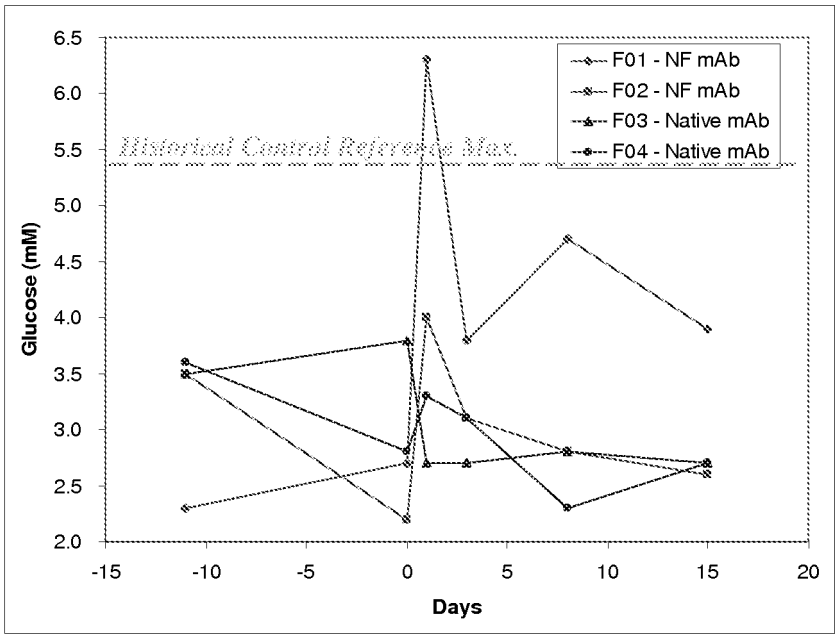


FIGURE 26B

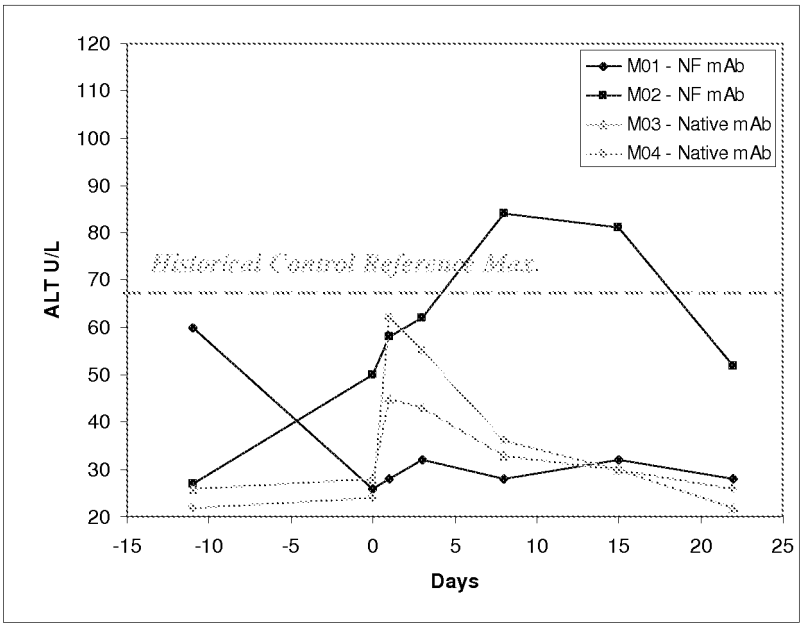


FIGURE 27A

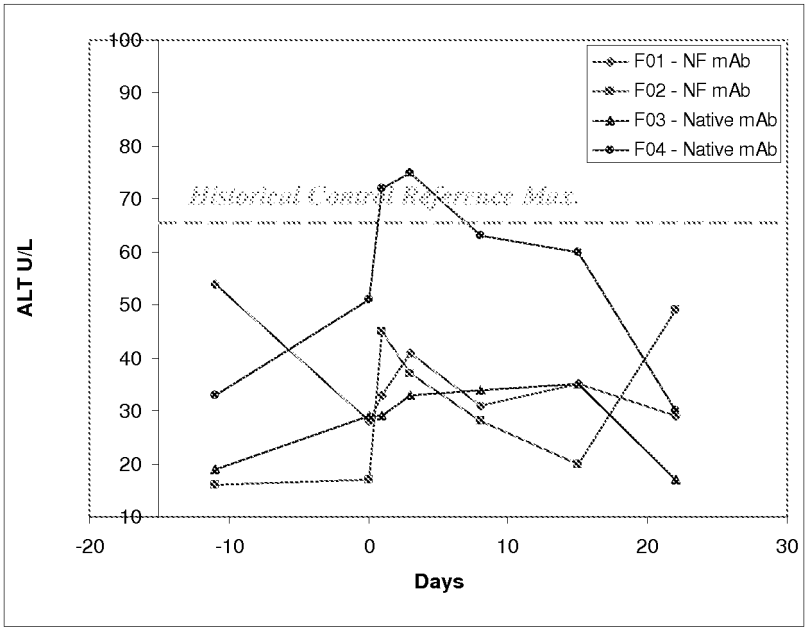


FIGURE 27B

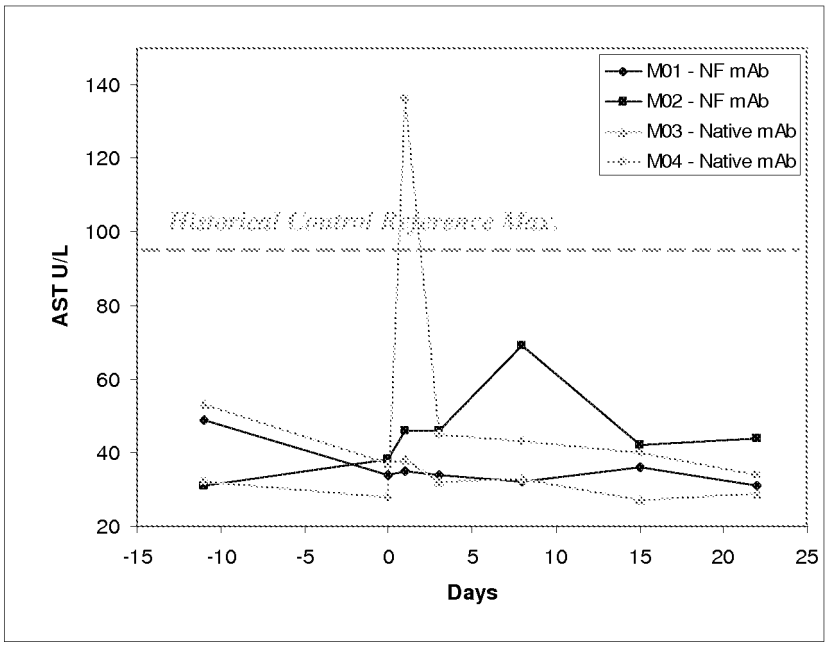


FIGURE 28A

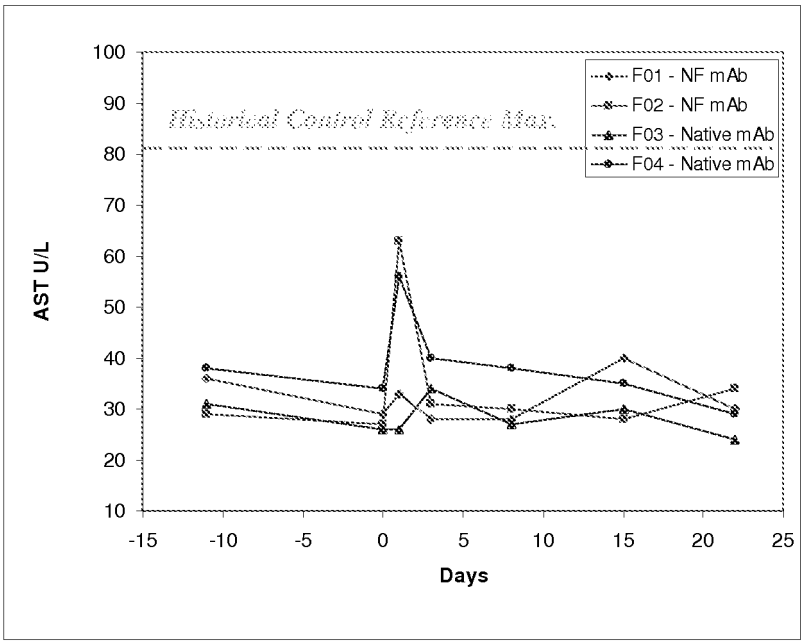


FIGURE 28B

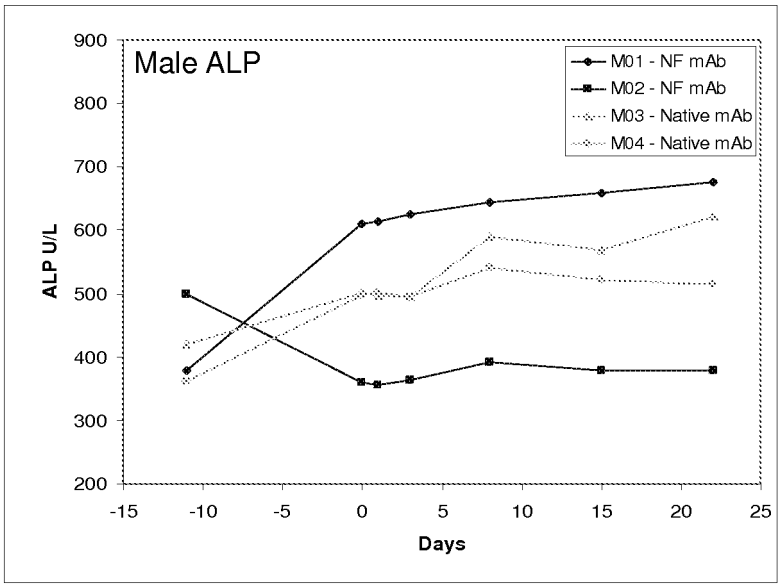


FIGURE 29A

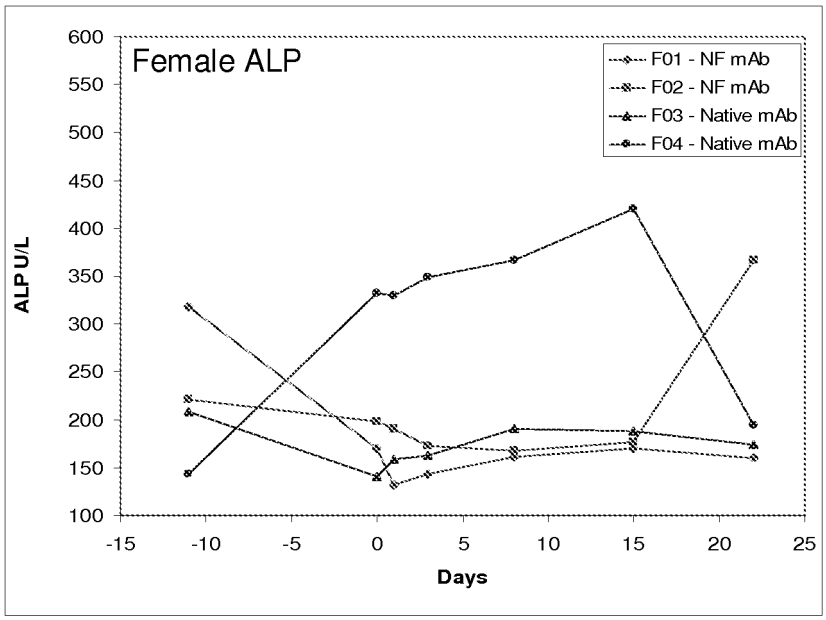


FIGURE 29B

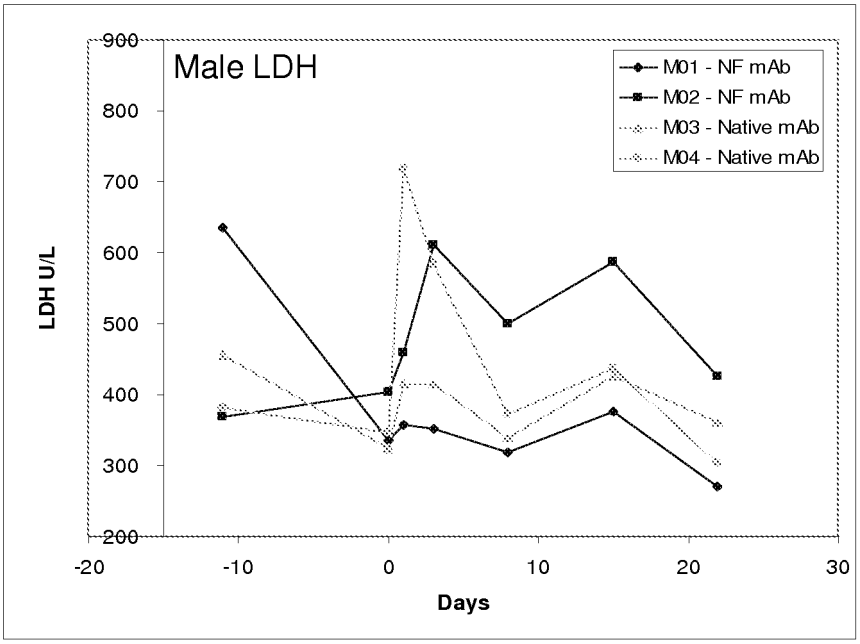


FIGURE 30A

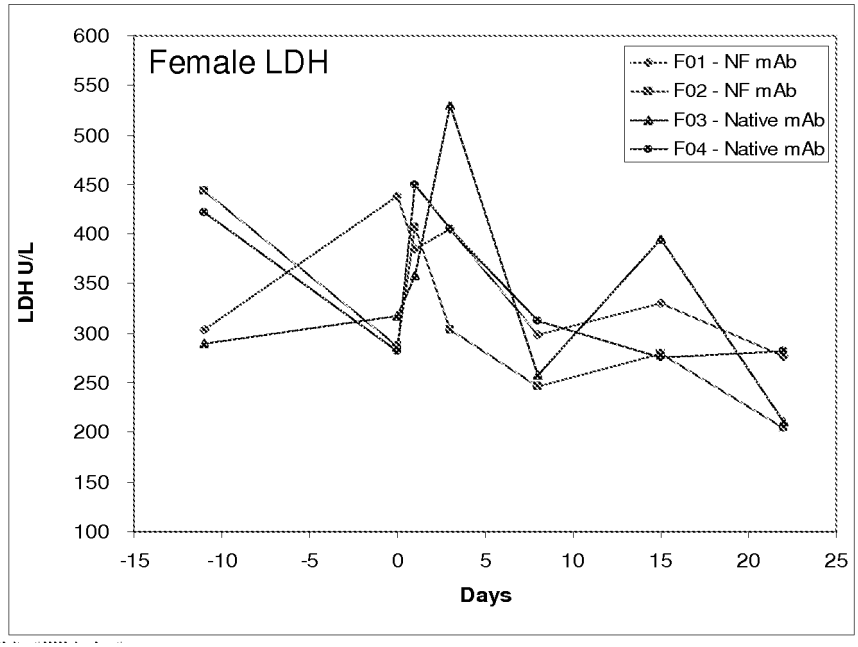


FIGURE 30B

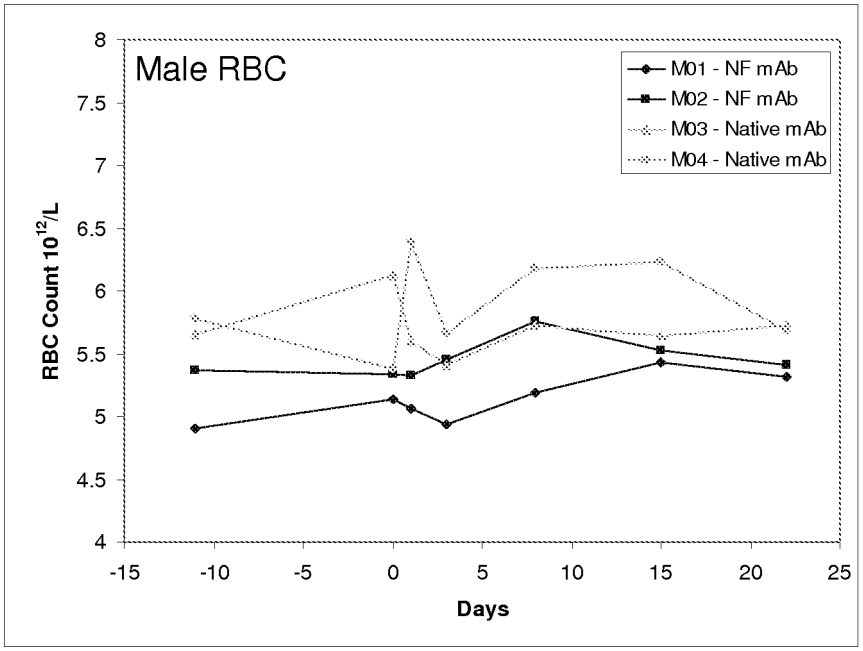


FIGURE 31A

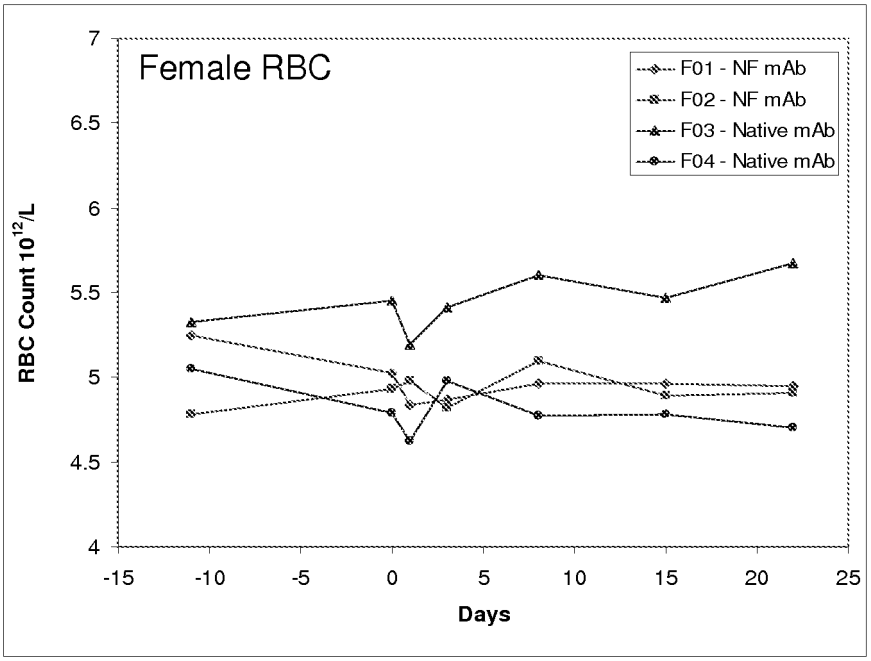


FIGURE 31B

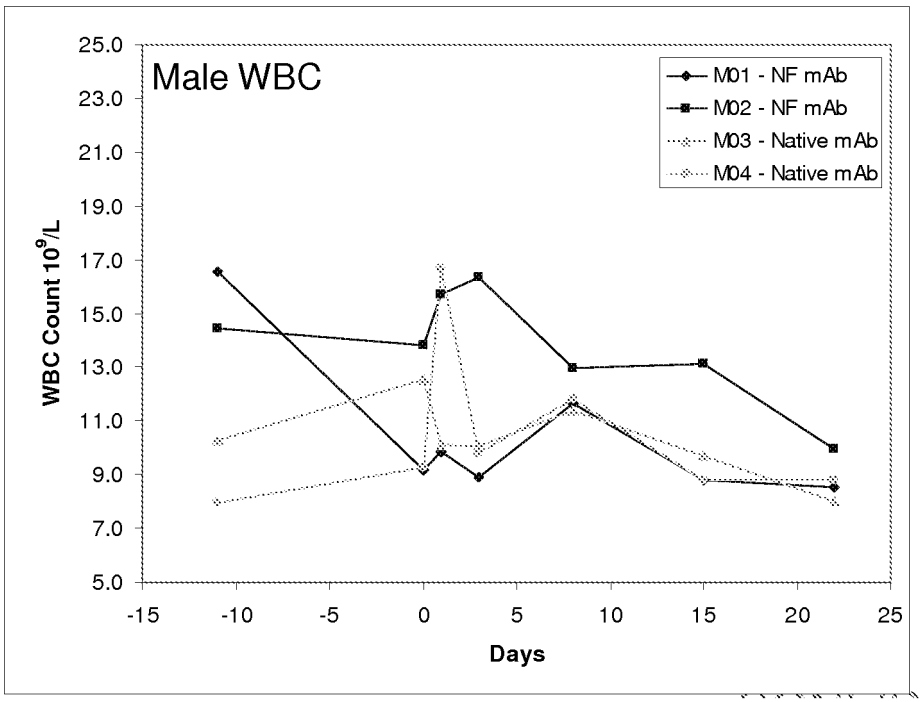


FIGURE 32A

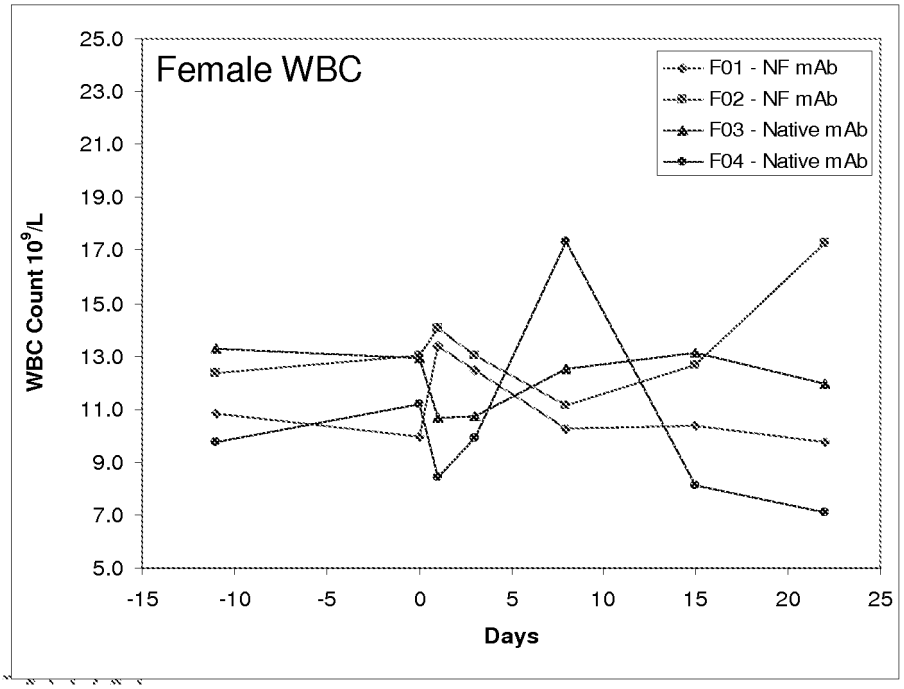


FIGURE 32B