Anti-LAG3 25F7 VH

V segment: 4-34
D segment: 5-12
J segment: JH5b

```
          Q   V   Q   L   Q   Q   W   G   A   G   L   L   K   P   S   E   T
          L
1         CAG GTG CAG CTA CAG CAG TGG GGC GCA GGA CTG TTG AAG CCT TCG GAG ACC
          CTG

                                                          CDR1
                                                          ~~~~~~~~~~~~~~~~~~~~
          S   L   T   C   A   V   Y   G   G   S   F   S   D   Y   Y   W   N
          W
55        TCC CTC ACC TGC GCT GTC TAT GGT GGG TCC TTC AGT GAT TAC TAC TGG AAC
          TGG

                                                                  CDR2

          ~~~~~~~~~~~~~~~~~~~
          I   R   Q   P   P   G   K   G   L   E   W   I   G   E   I   N   H
          N
109       ATC CGC CAG CCC CCA GGG AAG GGG CTG GAG TGG ATT GGG GAA ATC AAT CAT
          AAT

                        CDR2
          ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
          G   N   T   N   S   N   P   S   L   K   S   R   V   T   L   S   L
          D
163       GGA AAC ACC AAC TCC AAC CCG TCC CTC AAG AGT CGA GTC ACC CTA TCA CTA
          GAC


          T   S   K   N   Q   F   S   L   K   L   R   S   V   T   A   A   D
          T
217       ACG TCC AAG AAC CAG TTC TCC CTG AAG CTG AGG TCT GTG ACC GCC GCG GAC
          ACG

                                                      CDR3

          ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
          A   V   Y   Y   C   A   F   G   Y   S   D   Y   E   Y   N   W   F
          D
271       GCT GTG TAT TAC TGT GCG TTT GGA TAT AGT GAC TAC GAG TAC AAC TGG TTC
          GAC

          CDR3
          ~~~
          P   W   G   Q   G   T   L   V   T   V   S   S
325       CCC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA
```

FIGURE 1A

Anti-LAG3 25F7 VK

V segment: L6
J segment: JK2

```
          E   I   V   L   T   Q   S   P   A   T   L   S   L   S   P   G   E
          R
1         GAA ATT GTG TTG ACA CAG TCT CCA GCC ACC CTG TCT TTG TCT CCA GGG GAA
          AGA

                                  CDR1
                        ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
          A   T   L   S   C   R   A   S   Q   S   I   S   S   Y   L   A   W
          Y
55        GCC ACC CTC TCC TGC AGG GCC AGT CAG AGT ATT AGC AGC TAC TTA GCC TGG
          TAC

                                                                  CDR2

          ~~~~~~~~~~~~~~~~~~~
          Q   Q   K   P   G   Q   A   P   R   L   L   I   Y   D   A   S   N
          R
109       CAA CAG AAA CCT GGC CAG GCT CCC AGG CTC CTC ATC TAT GAT GCA TCC AAC
          AGG

          CDR2
          ~~~~~~~
          A   T   G   I   P   A   R   F   S   G   S   G   S   G   T   D   F
          T
163       GCC ACT GGC ATC CCA GCC AGG TTC AGT GGC AGT GGG TCT GGG ACA GAC TTC
          ACT


          CDR3

          ~~~~~~~
          L   T   I   S   S   L   E   P   E   D   F   A   V   Y   Y   C   Q
          Q
217       CTC ACC ATC AGC AGC CTA GAG CCT GAA GAT TTT GCA GTT TAT TAC TGT CAG
          CAG

                  CDR3
          ~~~~~~~~~~~~~~~~~~~~~~~~~~~
          R   S   N   W   P   L   T   F   G   Q   G   T   N   L   E   I   K
271       CGT AGC AAC TGG CCT CTC ACT TTT GGC CAG GGG ACC AAC CTG GAG ATC AAA
```

FIGURE 1B

Anti-LAG3 26H10 VH

V segment: 3-33
D segment: 6-19
J segment: JH6b

```
   Q   V   Q   L   V   E   S   G   G   G   V   V   Q   P   G   R   S
  L
  1 CAG GTG CAG CTG GTG GAG TCT GGG GGA GGC GTG GTC CAG CCT GGG AGG TCC
  CTG

                                                          CDR1
                                                  ~~~~~~~~~~~~~~~~~~~~
   R   L   S   C   A   A   S   G   F   T   F   S   S   Y   G   M   H
  W
 55 AGA CTC TCC TGT GCA GCG TCT GGA TTC ACC TTC AGT AGC TAT GGC ATG CAC
  TGG

                                                              CDR2

  ~~~~~~~~~~~~~~~~~~~~
   V   R   Q   A   P   G   K   G   L   E   W   V   A   V   I   W   Y
  D
109 GTC CGC CAG GCT CCA GGC AAG GGG CTG GAG TGG GTG GCA GTT ATA TGG TAT
  GAT

                  CDR2
  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   G   S   N   K   Y   Y   A   D   S   V   K   G   R   F   T   I   S
  R
163 GGA AGT AAT AAA TAC TAT GCA GAC TCC GTG AAG GGC CGA TTC ACC ATC TCC
  AGA

   D   N   S   K   N   T   L   Y   L   Q   M   N   S   L   R   A   E
  D
217 GAC AAT TCC AAG AAC ACG CTG TAT CTG CAA ATG AAC AGC CTG AGA GCC GAG
  GAC

                                                      CDR3

  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   T   A   V   Y   Y   C   A   R   E   W   A   V   A   S   W   D   Y
  G
271 ACG GCT GTG TAT TAC TGT GCG AGA GAA TGG GCA GTG GCC TCC TGG GAC TAC
  GGT

    CDR3
  ~~~~~~~~~~~
   M   D   V   W   G   Q   G   T   T   V   T   V   S   S
325 ATG GAC GTC TGG GGC CAA GGG ACC ACG GTC ACC GTC TCC TCA
```

FIGURE 2A

Anti- LAG3 26H10 VK

V segment: A27
J segment: JK3

```
  E   I   V   L   T   Q   S   P   G   T   L   S   L   S   P   G   E
R
1 GAA ATT GTG TTG ACG CAG TCT CCA GGC ACC CTG TCT TTG TCT CCA GGG GAA
AGA

                          CDR1
                    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
  A   T   L   S   C   R   A   S   Q   S   V   S   S   S   Y   L   A
W
55 GCC ACC CTC TCC TGC AGG GCC AGT CAG AGT GTT AGC AGC AGC TAC TTA GCC
TGG

                                                          CDR2

  ~~~~~~~~~~~~~~~~
  Y   Q   Q   K   P   G   Q   A   P   R   L   L   I   Y   G   A   S
S
109 TAC CAG CAG AAA CCT GGC CAG GCT CCC AGG CTC CTC ATC TAT GGT GCA TCC
AGC

  CDR2
  ~~~~~~~~~~~~
  R   A   T   G   I   P   D   R   F   S   G   S   G   S   G   T   D
F
163 AGG GCC ACT GGC ATC CCA GAC AGG TTC AGT GGC AGT GGG TCT GGG ACA GAC
TTC


  CDR3

  ~~~
  T   L   T   I   S   R   L   E   P   E   D   F   A   V   Y   Y   C
Q
217 ACT CTC ACC ATC AGC AGA CTG GAG CCT GAA GAT TTT GCA GTG TAT TAC TGT
CAG

          CDR3
  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
  Q   Y   G   S   S   P   F   T   F   G   P   G   T   K   V   D   I
K
271 CAG TAT GGT AGC TCA CCA TTC ACT TTC GGC CCT GGG ACC AAA GTG GAT ATC
AAA
```

FIGURE 2B

Anti-LAG3 25E3 VH

V segment: 3-20
D segment: ND
J segment: JH4b

```
   E   V   Q   L   V   E   S   G   G   G   V   V   R   P   G   G   S
   L
 1 GAG GTG CAG TTG GTG GAG TCT GGG GGA GGT GTG GTA CGG CCT GGG GGG TCC
   CTG

                                                       CDR 1
                                                   ~~~~~~~~~~~~~~~~~~~
   R   L   S   C   A   A   S   G   F   T   F   D   D   Y   G   M   S
   W
55 AGA CTC TCC TGT GCA GCC TCT GGA TTC ACC TTT GAT GAT TAT GGC ATG AGC
   TGG

                                                               CDR 2

   ~~~~~~~~~~~~~~~~~~~
   V   R   Q   A   P   G   K   G   L   E   W   V   S   G   I   N   W
   N
109 GTC CGC CAA GCT CCA GGG AAG GGG CTG GAG TGG GTC TCT GGT ATT AAT TGG
   AAT

                CDR 2
   ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   G   G   S   T   Y   Y   A   D   S   V   K   G   R   F   T   I   S
   G
163 GGT GGT AGC ACA TAT TAT GCA GAC TCT GTG AAG GGC CGA TTC ACC ATC TCC
   GGA

   D   N   A   K   N   S   L   Y   L   Q   M   N   S   L   R   A   E
   D
217 GAC AAC GCC AAG AAC TCC CTG TAT CTG CAA ATG AAC AGT CTG AGA GCC GAG
   GAC

                                       CDR 3
                                   ~~~~~~~~~~~~
   T   A   L   Y   Y   C   T   T   G   G   Y   W   G   Q   G   T   L
   V
271 ACG GCC TTG TAT TAC TGT ACC ACT GGG GGC TAC TGG GGC CAG GGA ACC CTG
   GTC

   T   V   S   S
325 ACC GTC TCC TCA
```

FIGURE 3A

Anti-LAG3 25E3 VK

V segment: L18
J segment: JK2

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

                                CDR 1
                    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   V   T   I   T   C   R   A   S   Q   G   I   R   S   A   L   A   W
  Y
55 GTC ACC ATC ACT TGC CGG GCA AGT CAG GGC ATT AGG AGT GCT TTA GCC TGG
  TAT

                                                              CDR 2

  ~~~~~~~~~~~~~~~~~~~
   Q   Q   K   P   G   K   A   P   K   L   L   I   Y   D   A   S   S
  L
109 CAG CAG AAA CCA GGG AAA GCT CCT AAG CTC CTG ATC TAT GAT GCC TCC AGT
  TTG

  CDR 2
  ~~~~~~~
   E   S   G   V   P   S   R   F   S   G   S   G   S   G   T   D   F
  T
163 GAA AGT GGG GTC CCA TCA AGG TTC AGC GGC AGT GGA TCT GGG ACA GAT TTC
  ACT

                                                                  CDR
  3

  ~~~~~~~
   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 TGT CAA
  CAG

          CDR 3
  ~~~~~~~~~~~~~~~~~~~~~~~~~~
   F   N   S   Y   P   Y   T   F   G   Q   G   T   K   L   E   I   K
271 TTT AAT AGT TAC CCG TAC ACT TTT GGC CAG GGG ACC AAG CTG GAG ATC AAA
```

FIGURE 3B

Anti-LAG3 8B7 VH

V segment: 4-34
D segment: 3-9
J segment: JH5b

```
   Q   V   Q   L   Q   Q   W   G   A   G   L   L   K   P   S   E   T
  L
  1 CAG GTG CAG CTA CAG CAG TGG GGC GCA GGA CTG TTG AAG CCA TCG GAA ACC
  CTG

                                                        CDR1
                                                        ~~~~~~~~~~~~~~~~~~~
   S   L   T   C   A   V   Y   G   G   S   F   S   G   Y   Y   W   S
  W
 55 TCC CTC ACC TGC GCT GTC TAT GGT GGG TCC TTC AGT GGT TAC TAC TGG AGC
  TGG

                                                                CDR2

  ~~~~~~~~~~~~~~~~~~~
   I   R   Q   P   P   G   K   G   L   E   W   I   G   E   I   N   H
  R
109 ATC CGC CAG CCC CCA GGG AAG GGG CTG GAG TGG ATT GGG GAA ATC AAT CAT
  CGT

                CDR2
  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   G   N   T   N   C   N   P   S   L   K   S   R   V   T   I   S   G
  D
163 GGA AAC ACC AAC TGC AAC CCG TCC CTC AAG AGT CGA GTC ACC ATA TCA GGA
  GAT

   T   S   K   K   Q   F   A   L   K   L   N   S   V   T   A   A   D
  T
217 ACG TCC AAG AAA CAG TTC GCC CTG AAG CTG AAC TCT GTG ACC GCC GCG GAC
  ACG

                                                    CDR3

  ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   A   V   Y   Y   C   A   R   G   Y   D   I   L   T   G   Y   Y   E
  D
271 GCT GTC TAT TAC TGT GCG AGA GGA TAC GAT ATT TTG ACT GGT TAT TAT GAG
  GAC

  CDR3
  ~~~~
   S   W   G   P   G   T   L   V   T   V   S   S
325 TCC TGG GGC CCG GGA ACC CTG GTC ACC GTC TCC TCA
```

FIGURE 4A

Anti-LAG3 8B7 VK

V segment: L6
J segment: JK4

```
  E   I   V   L   T   Q   S   P   A   T   L   S   L   S   P   G   E
R
1 GAA ATT GTG TTG ACA CAG TCT CCA GCC ACC CTG TCT TTG TCT CCA GGG GAA
AGA

                                CDR1
                    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
  A   T   L   S   C   R   A   S   Q   S   V   S   S   Y   L   A   W
Y
55 GCC ACC CTC TCC TGC AGG GCC AGT CAG AGT GTT AGC AGC TAC TTA GCC TGG
TAC

                                                            CDR2

  ~~~~~~~~~~~~~~~~~~~
  Q   Q   K   P   G   Q   A   P   R   L   L   I   Y   N   A   S   N
R
109 CAA CAG AAA CCT GGC CAG GCT CCC AGG CTC CTC ATC TAT AAT GCA TCC AAC
AGG

  CDR2
  ~~~~~~~
  A   T   G   I   P   A   R   F   S   G   S   G   S   G   T   D   F
T
163 GCC ACT GGC ATC CCA GCC AGG TTC AGT GGC AGT GGG TCT GGG ACA GAC TTC
ACT


  CDR3

  ~~~~~~~
  L   T   I   S   S   L   E   P   E   D   F   A   V   Y   Y   C   Q
Q
217 CTC ACC ATC AGC AGC CTA GAG CCT GAA GAT TTT GCA GTT TAT TAC TGT CAG
CAG

          CDR3
  ~~~~~~~~~~~~~~~~~~~~~~~~~~~
  R   S   N   W   P   L   T   F   G   G   G   T   K   V   E   I   K
271 CGT AGC AAC TGG CCG CTC ACT TTC GGC GGA GGG ACC AAG GTG GAG ATC AAA
```

FIGURE 4B

Anti- LAG3 11F2 VH

V segment: 1-24
D segment: 2-15
J segment: JH4b

```
      T   H   D   Q   V   Q   L   V   Q   S   G   A   E   V   K   K   P
G
    1 ACC CAC GAC CAG GTC CAG CTG GTA CAG TCT GGG GCT GAG GTG AAG AAG CCT
      GGG

                                                                  CDR 1

      ~~~~~~~~~~~
      A   S   V   K   V   S   C   K   V   S   G   Y   T   L   T   E   V
      S
   55 GCC TCA GTG AAG GTC TCC TGC AAG GTT TCC GGA TAC ACC CTC ACT GAA GTA
      TCC

      CDR 1                                                          CDR
      2
      ~~~~~~~
      ~~~~~~~
      M   H   W   V   R   Q   A   P   G   K   G   L   E   W   M   G   G
      F
  109 ATG CAC TGG GTG CGA CAG GCT CCT GGA AAA GGG CTT GAG TGG ATG GGA GGT
      TTT

                        CDR 2
      ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
      D   P   E   D   G   E   T   I   Y   A   Q   K   F   Q   G   R   V
      T
  163 GAT CCT GAA GAT GGT GAA ACA ATC TAC GCA CAG AAG TTC CAG GGC AGA GTC
      ACC

      M   T   E   D   T   S   T   D   T   A   Y   M   E   L   S   S   L
      R
  217 ATG ACC GAG GAC ACA TCT ACA GAC ACA GCC TAC ATG GAG CTG AGC AGC CTG
      AGA

                                                        CDR 3

      ~~~~~~~~~~~~~~~~~~~~~~~~~~~
      S   E   D   T   A   V   Y   Y   C   A   T   A   F   V   V   V   V
      A
  271 TCT GAG GAC ACG GCC GTG TAT TAC TGT GCA ACA GCC TTT GTA GTG GTG GTA
      GCT


        CDR 3
      ~~~~~~~~~~~~~~~~
      A   S   D   Y   W   G   Q   G   T   L   V   T   V   S   S
  325 GCT TCT GAC TAC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA
```

FIGURE 5A

Anti-LAG3 11F2 VK

V segment: L6
J segment: JK1

```
     E   I   V   L   T   Q   S   P   A   T   L   S   L   S   P   G   E
   R
   1 GAA ATT GTG TTG ACA CAG TCT CCA GCC ACC CTG TCT TTG TCT CCA GGG GAA
   AGA

                                CDR 1
                    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
     A   T   L   S   C   R   A   S   Q   S   V   S   S   Y   L   A   W
   Y
  55 GCC ACC CTC TCC TGC AGG GCC AGT CAG AGT GTT AGC AGC TAC TTA GCC TGG
   TAC

                                                                CDR 2

     ~~~~~~~~~~~~~~~~~~~~
     Q   Q   K   P   G   Q   A   P   R   L   L   I   Y   D   A   S   N
   R
 109 CAA CAG AAA CCT GGC CAG GCT CCC AGG CTC CTC ATC TAT GAT GCA TCC AAC
   AGG

   CDR 2
   ~~~~~~~
     A   T   G   I   P   A   R   F   S   G   S   G   S   G   T   D   F
   T
 163 GCC ACT GGC ATC CCA GCC AGG TTC AGT GGC AGT GGG TCT GGG ACA GAC TTC
   ACT

                                                                   CDR
   3

   ~~~~~~~
     L   T   I   S   S   L   E   P   E   D   F   A   V   Y   Y   C   Q
   Q
 217 CTC ACC ATC AGC AGC CTA GAG CCT GAA GAT TTT GCA GTT TAT TAC TGT CAG
   CAG

           CDR 3
     ~~~~~~~~~~~~~~~~~~~~~~~~~~~
     R   S   N   W   P   W   T   F   G   Q   G   T   K   V   E   I   K
 271 CGT AGC AAC TGG CCG TGG ACG TTC GGC CAA GGG ACC AAG GTG GAA ATC AAA
```

FIGURE 5B

Anti-LAG3 17E5 VH

V segment: 3-33
D segment: 2-2
J segment: JH4b

```
    Q   V   H   L   V   E   S   G   G   G   V   V   Q   P   G   R   S
    L
  1 CAG GTG CAC CTG GTG GAG TCT GGG GGA GGC GTG GTC CAG CCT GGG AGG TCC
    CTG

                                                        CDR 1
                                                    ~~~~~~~~~~~~~~~~~~~
    R   L   S   C   A   A   S   G   F   T   F   S   S   Y   G   M   H
    W
 55 AGA CTC TCC TGT GCA GCG TCT GGA TTC ACC TTC AGT AGC TAT GGC ATG CAC
    TGG

                                                              CDR 2

    ~~~~~~~~~~~~~~~~~~~
    V   R   Q   A   P   G   K   G   L   E   W   V   A   V   I   W   Y
    D
109 GTC CGC CAG GCT CCA GGC AAG GGG CTG GAG TGG GTG GCA GTT ATA TGG TAT
    GAT

                  CDR 2
    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
    G   S   N   K   Y   Y   A   D   S   V   K   G   R   F   T   I   S
    R
163 GGA AGT AAT AAA TAC TAT GCA GAC TCC GTG AAG GGC CGA TTC ACC ATC TCC
    AGA

    D   N   S   K   N   T   L   Y   L   Q   M   N   S   L   R   A   E
    D
217 GAC AAT TCC AAG AAC ACG CTG TAT CTG CAA ATG AAC AGC CTG AGA GCC GAG
    GAC

                                                  CDR 3

    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
    T   A   V   Y   Y   C   A   R   D   P   H   C   S   S   T   N   C
    Y
271 ACG GCT GTG TAT TAC TGT GCG AGA GAT CCC CAT TGT AGT AGT ACC AAC TGC
    TAC

      CDR 3
    ~~~~~~~~~~~~~~~~
    L   F   D   Y   W   G   Q   G   T   L   V   T   V   S   S
325 CTT TTT GAC TAC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA
```

FIGURE 6A

Anti-LAG3 17E5 VK

V segment: L6
J segment: JK5

```
   E   I   V   L   T   Q   S   P   A   T   L   S   L   S   P   G   E
R
 1 GAA ATT GTG TTG ACA CAG TCT CCA GCC ACC CTG TCT TTG TCT CCA GGG GAA
AGA

                                CDR 1
                    ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   A   T   L   S   C   R   A   S   Q   S   V   S   S   Y   L   A   W
Y
55 GCC ACC CTC TCC TGC AGG GCC AGT CAG AGT GTT AGC AGC TAC TTA GCC TGG
TAC

                                                              CDR 2

   ~~~~~~~~~~~~~~~~~~~
   Q   Q   K   P   G   Q   A   P   R   L   L   I   Y   D   A   S   N
R
109 CAA CAG AAA CCT GGC CAG GCT CCC AGG CTC CTC ATC TAT GAT GCA TCC AAC
AGG

CDR 2
~~~~~~~
   A   T   G   I   P   A   R   F   S   G   S   G   S   G   T   D   F
T
163 GCC ACT GGC ATC CCA GCC AGG TTC AGT GGC AGT GGG TCT GGG ACA GAC TTC
ACT

                                                                  CDR
3

~~~~~~~
   L   T   I   S   S   L   E   P   E   D   F   A   V   Y   Y   C   Q
Q
217 CTC ACC ATC AGC AGC CTA GAG CCT GAA GAT TTT GCA GTT TAT TAC TGT CAG
CAG

          CDR 3
~~~~~~~~~~~~~~~~~~~~~~~~~~~
   R   S   N   W   P   I   T   F   G   Q   G   T   R   L   E   I   K
271 CGT AGC AAC TGG CCT ATC ACC TTC GGC CAA GGG ACA CGA CTG GAG ATT AAA
```

FIGURE 6B

Anti-LAG3 25F7 VH

CDR1

4-34 germline Q V Q L Q Q W G A G L L K P S E T L S L T C A V Y G G S F S G Y Y W S W

25F7 VH - D - - - N -

CDR2

4-34 germline I R Q P P G K G L E W I G E I N H S G S T N Y N P S L K S R V T I S V D

25F7 VH - N - N - - S - - - - - - - - - - L - L -

CDR3

4-34 germline T S K N Q F S L K L S S V T A A D T A V Y Y C A R

JH5b germline N W F D

25F7 VH - - - - - - - - - - - R - - - - - - - - - - - - - - - - F G Y S D Y E Y - - - -

JH5b germline P W G Q G T L V T V S S

25F7 VH - - - - - - - - - - - - - - - - (JH5b)

FIGURE 7

Anti-LAG3 25F7 VK

```
     _____CDR1_______
L6 germline      E I V L T Q S P A T L S L S P G E R A T L S C
R A S Q S V S S
25F7 VK          - - - - - - - - - - - - - - - - - - - - - - -
- - - - - I - -

                 ______
     _____CDR2_____
L6 germline      Y L A W Y Q Q K P G Q A P R L L I Y D A S N R
A T G I P A R F
25F7 VK          - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

     _CDR3____
L6 germline      S G S G S G T D F T L T I S S L E P E D F A V
Y Y C Q Q R S N
25F7 VK          - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

                 _______
L6 germline      W P
JK2 germline           T F G Q G T K L E I K
25F7 VK          - - L - - - - - - - N - - - -     (JK2)
```

FIGURE 8

Anti-LAG3 26H10 VH

_CDR1_____

3-33 germline Q V Q L V E S G G G V V Q P G R S L R L S C A A S G F T F S S Y G M H W

26H10 VH -

_CDR2______________________________

3-33 germline V R Q A P G K G L E W V A V I W Y D G S N K Y Y A D S V K G R F T I S R

26H10 VH -

_CDR3_______________

3-33 germline D N S K N T L Y L Q M N S L R A E D T A V Y Y C A R

JH6b germline Y G

26H10 VH - E W A V A S W D - -

JH6b germline M D V W G Q G T T V T V S S

26H10 VH - - - - - - - - - - - - - -

FIGURE 9

Anti-LAG3 26H10 VK

*_CDR1*_____

A27 germline E I V L T Q S P G T L S L S P G E R A T L S
C R A S Q S V S S S Y L A W
26H10 VK -
- - - - - - - - - - - - - - -

_CDR2 _____

A27 germline Y Q Q K P G Q A P R L L I Y G A S S R A T G
I P D R F S G S G S G T D F
26H10 VK -
- - - - - - - - - - - - - - -

*CDR3*_____

A27 germline T L T I S R L E P E D F A V Y Y C Q Q Y G S
S P
JK3 germline
F T F G P G T K V D I K
26H10 VK -
- - - - - - - - - - - - - - -

FIGURE 10

Anti-LAG3 25E3 VH

_CDR1____

3-20 germline E V Q L V E S G G G V V R P G G S L R L S C A A
S G F T F D D Y G M S W
25E3 VH -
- - - - - - - - - - - - -

_CDR2_____

3-20 germline V R Q A P G K G L E W V S G I N W N G G S T G Y
A D S V K G R F T I S R
25E3 VH - Y -
- - - - - - - - - - - - G

CDR 3

3-20 germline D N A K N S L Y L Q M N S L R A E D T A L Y H C
A R
JH4b germline
Y W G Q G T L V
25E3 VH - Y -
T T G G - - - - - - - -

JH4b germline T V S S
25E3 VH - - - - (JH4B)

FIGURE 11

Anti-LAG3 25E3 VK

```
_______CDR_1_____
L18  germline A I Q L 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
25E3 VK1      - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - R -

                CDR 1
_CDR2_________
L18  germline A L A W Y Q Q K P G K A P K L L I Y D A S S L E
S G V P S R F
25E3 VK1      - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


_CDR3_____
L18  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 F N S
25E3 VK1      - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

                CDR 3__
L18  germline Y P
JK2  germline     Y T F G Q G T K L E I K (JK2)
```

FIGURE 12

Anti-LAG3 8B7 VH

_CDR1_____
4-34 germline Q V Q L Q Q W G A G L L K P S E T L S L T C
A V Y G G S F S G Y Y W S W
8B7 VH -
- - - - - - - - - - - - - -

_CDR2________________________
4-34 germline I R Q P P G K G L E W I G E I N H S G S T N
Y N P S L K S R V T I S V D
8B7 VH - - - - - - - - - - - - - - - - - R - N - -
C - - - - - - - - - - - G -

_CDR3_______________
4-34 germline T S K N Q F S L K L S S V T A A D T A V Y Y
C A R G
JH5b germline
D
8B7 VH - - - K - - A - - - N - - - - - - - - - - -
- - - - - - - - - - - - E -

JH5b germline P W G Q G T L V T V S S
8B7 VH S - - P - - - - - - - -

FIGURE 13

Anti-LAG3 8B7 VK

```
_CDR1__________
L6 germline        E I V L T Q S P A T L S L S P G E R A T L S
C R A S Q S V S S
8B7 VK             - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -

                   _____
_CDR2_________
L6 germline        Y L A W Y Q Q K P G Q A P R L L I Y D A S N
R A T G I P A R F
8B7 VK             - - - - - - - - - - - - - - - - - - N - - -
- - - - - - - - - -

_CDR3____
L6 germline        S G S G S G T D F T L T I S S L E P E D F A
V Y Y C Q Q R S N
8B7 VK             - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -

                   _______
L6 germline        W P
JK4 germline           L T F G G G T K V E I K
8B7 VK             - - - - - - - - - - - - - -
```

FIGURE 14

Anti-LAG3 11F2 VH

_CDR1_____
1-24 germline (T H A)Q V Q L V Q S G A E V K K P G A S V
K V S C K V S G Y T L T E L S M H W
11F2.6 VH - - D -
- - - - - - - - - - - - - - V - - - -

_CDR2_____
1-24 germline V R Q A P G K G L E W M G G F D P E D G E
T I Y A Q K F Q G R V T M T E
11F2.6 VH -
- - - - - - - - - - - - - - -

_CDR3_____
1-24 germline D T S T D T A Y M E L S S L R S E D T A V
Y Y C A T
JH4b germline
D
11F2.6 VH -
- - - - - A F V V V V A A S -

JH4b germline Y W G Q G T L V T V S S
11F2.6 VH - - - - - - - - - - - - -(JH4b)

Please note: THA is from the predicted leader sequence of VH 1-24

FIGURE 15

Anti-LAG3 11F2 VK

```
__CDR1__________
L6 germline          E I V L T Q S P A T L S L S P G E R A T
L S C R A S Q S V S S
11F2.6 VK            - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - -

                     _____
__CDR2_________
L6 germline          Y L A W Y Q Q K P G Q A P R L L I Y D A
S N R A T G I P A R F
11F2.6 VK            - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - -

_CDR3____
L6 germline          S G S G S G T D F T L T I S S L E P E D
F A V Y Y C Q Q R S N
11F2.6 VK            - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - -

                     _______
L6  germline         W P
JK1 germline             W T F G Q G T K V E I K
11F2.6 VK            - - - - - - - - - - - - - - - -(JK1)
```

FIGURE 16

Anti-LAG3 17E5 VH

CDR1

3-33 germline Q V Q L V E S G G G V V Q P G R S L R L S
C A A S G F T F S S Y G M H W
17E5 VH - - H -
- - - - - - - - - - - - - - - -

CDR2

3-33 germline V R Q A P G K G L E W V A V I W Y D G S N
K Y Y A D S V K G R F T I S R
17E5 VH -
- - - - - - - - - - - - - - - -

CDR3

3-33 germline D N S K N T L Y L Q M N S L R A E D T A V
Y Y C A R
2-2 germline
C S S T S C Y
17E5 VH -
- - - - - D P H - - - - N - -

2-2 germline T
JH4b germline F D Y W G Q G T L V T V S S
17E5 VH L - - - - - - - - - - - - - - -

FIGURE 17

Anti-LAG3 17E5 VK

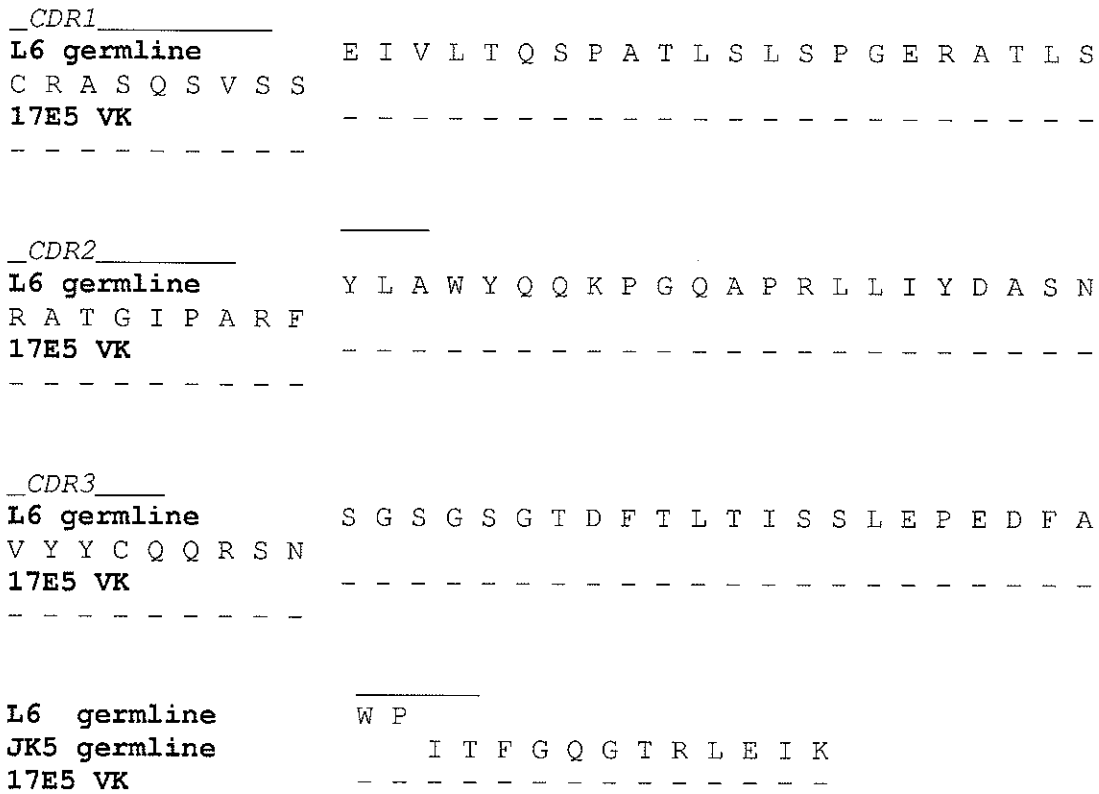


FIGURE 18

```
                                        1
50
Rhesus LAG-3 (XM_001108923)     (1)
MWEAQFLGLLFLQPLWVAPVKPPQPGAEISVVWAQEGAPAQLPCSPTIPL
          cDNA Clone pa23-5     (1)
MWEAQFLGLLFLQPLWVAPVKPPQPGAEISVVWAQEGAPAQLPCSPTIPL
                                       51
100
Rhesus LAG-3 (XM_001108923)    (51)
QDLSLLRRAGVIWQHQPDSGPPAPAPGHPPAPGHRPAAPYSWGPRPRRYT
          cDNA Clone pa23-5    (51)
QDLSLLRRAGVTWQHQPDSGPPAPAPGHPPAPGHRPAAPYSWGPRPRRYT

      extra loop peptide
                                      101
150
Rhesus LAG-3 (XM_001108923)  (101)
VLSVGPGGLRSGRLPLQPRVQLDERGRQRGDFSLWLRPARRADAGEYRAT
          cDNA Clone pa23-5  (101)
VLSVGPGGLRSGRLPLQPRVQLDERGRQRGDFSLWLRPARRADAGEYRAT
                                      151
200
Rhesus LAG-3 (XM_001108923)  (151)
VHLRDRALSCRLRLRVGQASMTASPPGSLRTSDWVILNCSFSRPDRPASV
          cDNA Clone pa23-5  (151)
VHLRDRALSCRLRLRVGQASMTASPPGSLRTSDWVILNCSFSRPDRPASV
                                      201
250
Rhesus LAG-3 (XM_001108923)  (201)
HWFRSRGQGRVPVQGSPHHHLAESFLFLPHVGPMDSGLWGCILTYRDGFN
          cDNA Clone pa23-5  (201)
HWFRSRGQGRVPVQGSPHHHLAESFLFLPHVGPMDSGLWGCILTYRDGFN
                                      251
300
Rhesus LAG-3 (XM_001108923)  (251)
VSIMYNLTVLGLEPATPLTVYAGAGSRVELPCRLPPAVGTQSFLTAKWAP
          cDNA Clone pa23-5  (251)
VSIMYNLTVLGLEPATPLTVYAGAGSRVELPCRLPPAVGTQSFLTAKWAP
                                      301
350
Rhesus LAG-3 (XM_001108923)  (301)
PGGGPDLLVAGDNGDFTLRLEDVSQAQAGTYICHIRLQGQQLNATVTLAI
          cDNA Clone pa23-5  (301)
PGGGPDLLVAGDNGDFTLRLEDVSQAQAGTYICHIRLQGQQLNATVTLAI
                                      351
400
Rhesus LAG-3 (XM_001108923)  (351)
ITVTPKSFGSPGSLGKLLCEVTPASGQEHFVWSPLNTPSQRSFSGPWLEA
          cDNA Clone pa23-5  (351)
ITVTPKSFGSPGSLGKLLCEVTPASGQEHFVWSPLNTPSQRSFSGPWLEA
                                      401
```

FIGURE 19

```
450
Rhesus LAG-3 (XM_001108923)  (401)
QEAQLLSQPWQCQLHQGETLLGAAVYFTELSSPGAQRSGRAPGALRAGHL
          cDNA Clone pa23-5  (401)
QEAQLLSQPWQCQLHQGERLLGAAVYFTELSSPGAQRSGRAPGALRAGHL
                                    451
500
Rhesus LAG-3 (XM_001108923)  (451)
PLFLILGVLFLLLLVTGAFGFHLWRRQWRPRRFSALEQGIHPPQAQSKIE
          cDNA Clone pa23-5  (451)
PLFLILGVLFLLLLVTGAFGFHLWRRQWRPRRFSALEQGIHPPQAQSKIE
                                    Transmembrane Domain
                                    501
534
Rhesus LAG-3 (XM_001108923)  (501)
ELEQEPELEPEPELERELGPEPEPGPEPEPEQL-
          cDNA Clone pa23-5  (501)
ELEQEPELEPEPELERELGPEPEPGPEPEPEQL-
```

FIGURE 19 Cont.