SUPPLEMENT TABLE 1

Listing of GenBank accesssion numbers for new Mamu-KIR3DH, 1D and 2DL4 alleles.

		GenBank Accession No.
KIR3DH	allele 1	GU564157
	allele 4	GU564158
	allele 5	GU564159
	allele 6	GU564160
	allele 7	GU564161
	allele 8	GU564162
	allele 9	GU564163
	allele 10	GU564164
	allele 11	GU564165
	allele 12	GU564166
	allele 13	GU564167
	allele 14	GU564168
KIR1D	allele 9A	GU564169
	allele 9B	GU564170
	allele 10A	GU564171
	allele 10 B	GU564172
	allele 11	GU564173
	allele 10sv1	GU564174
	allele 11sv1	GU564175
KIR2DL4	allele 3	GU564176
	allele 4	GU564177
	alllele 5	GU564178
	allele 6	GU564179
	alllele 7A	GU564180
	allele 7B	GU564181

SUPPLEMENT FIGURE 1 A and B

Alignment of the Mamu-KIR2DL4 sequences of alleles 1, 2, 3, 4, 5, 6, 7 A and 7B at the (A) nucleotide and (B) amino acid level

(A) nucleotide level

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Signal peptide
Consensus            ---------------------CTGGCCTGTCTTGGGTTCTTCTTGGACCAGAGGGTGCGGGCA
KIR2DL4 allele-1     ATGTCGCCCACGGTCGTCATC..........................................   63
KIR2DL4 allele-2     ATGTCGCCCACGGTCGTCATC..........................................   63
KIR2DL4 allele-3     ---------------------...................G......................   42
KIR2DL4 allele-4     ---------------------.....................................A....   42
KIR2DL4 allele-5     ---------------------..........................................   42
KIR2DL4 allele-6     ---------------------..........................................   42
KIR2DL4 allele-7A    ---------------------..........................................   42
KIR2DL4 allele-7B    ---------------------..........................................   42

Do domain
Consensus            CACGTGGGTGGTCAGGACAAGCCCTTCTGCTCTGCCTGGCCCAGCGCTGTGGTGCCTCAGGGAGGACACGTGACTCTTTG
KIR2DL4 allele-1     ................................................................................   143
KIR2DL4 allele-2     ................................................................................   143
KIR2DL4 allele-3     ..........................................G.....................................   122
KIR2DL4 allele-4     ................C.G...................................................C.........   122
KIR2DL4 allele-5     ................................................................................   122
KIR2DL4 allele-6     ................................................................................   122
KIR2DL4 allele-7A    ................................................................................   122
KIR2DL4 allele-7B    ................................................................................   122

Consensus            GTGTCACTATCGTCCTGGGTTTAACATCTTCACGCTGTACAAGGAAGACGGGGTGCCTGTCCCTGAGCTCTACAAAAGAA
KIR2DL4 allele-1     ................................................................................   223
KIR2DL4 allele-2     ................................................................................   223
KIR2DL4 allele-3     ...............................................................................G   202
KIR2DL4 allele-4     ...............................G................................................   202
KIR2DL4 allele-5     ................................................................................   202
KIR2DL4 allele-6     ................................................................................   202
KIR2DL4 allele-7A    ................................................................................   202
KIR2DL4 allele-7B    ................................................................................   202

Consensus            TATTCTGGAACAGTTTCCTCATTAGCCCTGTGACTGCAGCACATGCAGGGACCTACAGATGTCGAGTTTTTCATCCGCAC
KIR2DL4 allele-1     ................................................................................   303
KIR2DL4 allele-2     ................................................................................   303
KIR2DL4 allele-3     ................................................................................   282
KIR2DL4 allele-4     ................................................................................   282
KIR2DL4 allele-5     ................................................................................   282
KIR2DL4 allele-6     ....................T...........................................................   282
KIR2DL4 allele-7A    ................................................................................   282
KIR2DL4 allele-7B    ................................................................................   282

Consensus            TCCCCCACTGAGTGGTCGGCACCCAGCAACCCCCTGGTGATCATGGTCACA
KIR2DL4 allele-1     ...................................................   354
KIR2DL4 allele-2     ...................................................   354
KIR2DL4 allele-3     ...................................................   333
KIR2DL4 allele-4     ...................................................   333
KIR2DL4 allele-5     ...................................................   333
KIR2DL4 allele-6     ...................................................   333
KIR2DL4 allele-7A    ...................................................   333
KIR2DL4 allele-7B    ...................................................   333
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D2 domain
Consensus             GGTCTATATGAGAAACCTTCTCTCTCAGCCCAGCCGGGCCCCACGGTTCCCACAGGAGAGAACATGACCTTGTCCTGCAG
KIR2DL4 allele-1      ................................................................................   434
KIR2DL4 allele-2      ................................................................................   434
KIR2DL4 allele-3      ................................................................................   413
KIR2DL4 allele-4      ..........G.....................................................................   413
KIR2DL4 allele-5      ..............T.................................................................   413
KIR2DL4 allele-6      ................................................................................   413
KIR2DL4 allele-7A     .................................................A..............................   413
KIR2DL4 allele-7B     ................................................................................   413

Consensus             TTCCCGGCGCTCCTTTGACATGTACCATCTATCCAGGGAGGGGGAGGCCCATGAACTTAGGCTCCCTGCAGTGCCGAGCG
KIR2DL4 allele-1      ................................................................................   514
KIR2DL4 allele-2      ................................................................................   514
KIR2DL4 allele-3      ................................................................................   493
KIR2DL4 allele-4      .............C..................................................................   493
KIR2DL4 allele-5      ................................................................................   493
KIR2DL4 allele-6      ................................................................................   493
KIR2DL4 allele-7A     ................................................................................   493
KIR2DL4 allele-7B     .........................T......................................................   493

Consensus             TCAATGGAACATTCCAGGCTGACTTCCCTCTGGGCCCTGCCACCCACGGAGGGAACTACAGATGCTTCGGCTCTCTCCGT
KIR2DL4 allele-1      ................................................................................   594
KIR2DL4 allele-2      ................................................................................   594
KIR2DL4 allele-3      ................................................................................   573
KIR2DL4 allele-4      .........................................................G......................   573
KIR2DL4 allele-5      ................................................................................   573
KIR2DL4 allele-6      ................................................................................   573
KIR2DL4 allele-7A     ................................................................................   573
KIR2DL4 allele-7B     ................................................................................   573

Consensus             GACTCTCCCTACGAGTGGTCAGACCCAAGTGACCCACTGCCCGTTTCTGTCACA
KIR2DL4 allele-1      ......................................................   648
KIR2DL4 allele-2      ..........................G...........................   648
KIR2DL4 allele-3      ................................................A.....   627
KIR2DL4 allele-4      ......................................................   627
KIR2DL4 allele-5      ..........................G...........................   627
KIR2DL4 allele-6      ......................................................   627
KIR2DL4 allele-7A     .................-....................................   626
KIR2DL4 allele-7B     ..................................-...................   626

Stem
Consensus             GGAAACCCTTCAAGTAGTTGGCCTTCACCCACTGAACCAAGCTTCAAAA-CTGGTATCGTCACACACCTGCCT
KIR2DL4 allele-1      .................................................-.......................   720
KIR2DL4 allele-2      .................................................-........AC..G..........   720
KIR2DL4 allele-3      .................................................-.......................   699
KIR2DL4 allele-4      .................................................-.......................   699
KIR2DL4 allele-5      ..............................G..............T...-............G..........   699
KIR2DL4 allele-6      ...............G.................................A.......................   700
KIR2DL4 allele-7A     .................................................-.........C.............   698
KIR2DL4 allele-7B     .................................................-.......................   698
 Transmembrane domain
 Consensus            GCTGTGATTAGGTACTCGGTGGCCACCATCTTCCTCACCATCCTCCTCTTCTTTCT
 KIR2DL4 allele-1     ........................................................   776
 KIR2DL4 allele-2     AT......................................................   776
 KIR2DL4 allele-3     ........................................................   755
 KIR2DL4 allele-4     ........................................................   755
 KIR2DL4 allele-5     .T......................................................   755
 KIR2DL4 allele-6     ........................................................   756
 KIR2DL4 allele-7A    ........................................................   754
 KIR2DL4 allele-7B    ........................................................   754

 Cytoplasmic tail
 Consensus            CCATCGTTGCTGGTGCTCCGACAAAAA-GAATGCTGCTGTAATGGACC
 KIR2DL4 allele-1     ...........................-....................   823
 KIR2DL4 allele-2     ..T........................-....................   823
 KIR2DL4 allele-3     ...........................A....................   803
 KIR2DL4 allele-4     ...........................-....................   802
 KIR2DL4 allele-5     ..T........................-....................   802
 KIR2DL4 allele-6     ...........................-....................   803
 KIR2DL4 allele-7A    ...........................-....................   801
 KIR2DL4 allele-7B    ...........................-............C.......   801
```

KIR2DL4 allele-1 and allele-2 refer to GenBank ac. no. EU702486 and AY728182, respectively.

(B) amino acid level

```
Signal peptide
Consensus           -------LACLGFFLDQRVRA
KIR2DL4 allele-1    MSPTVVI..............   21
KIR2DL4 allele-2    MSPTVVI..............   21
KIR2DL4 allele-3    -------......C.......   14
KIR2DL4 allele-4    -------............Q.   14
KIR2DL4 allele-5    -------..............   14
KIR2DL4 allele-6    -------..............   14
KIR2DL4 allele-7A   -------..............   14
KIR2DL4 allele-7B   -------..............   14

Do domain
Consensus           HVGGQDKPFCSAWPSAVVPQGGHVTLWCHYRPGFNIFTLYKEDGVPVPELYKRIFWNSFLISPVTAAHAGTYRCRVFHPHSPTEWSAPSNPLVIMVT
KIR2DL4 allele-1    .................................................................................................   118
KIR2DL4 allele-2    .................................................................................................   118
KIR2DL4 allele-3    ..............G......................................V...........................................   111
KIR2DL4 allele-4    .....AE................A.............A...........................................................   111
KIR2DL4 allele-5    .................................................................................................   111
KIR2DL4 allele-6    ............................................................F....................................   111
KIR2DL4 allele-7A   .................................................................................................   111
KIR2DL4 allele-7B   .................................................................................................   111

D2 domain
Consensus           GLYEKPSLSAQPGPTVPTGENMTLSCSSRRSFDMYHLSREGEAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSPYEWSDPSDPLPVSVT
KIR2DL4 allele-1    ..................................................................................................   216
KIR2DL4 allele-2    ..................................................................................................   216
KIR2DL4 allele-3    ................................................................................................I.   209
KIR2DL4 allele-4    ...G...........................L........................................C.........................   209
KIR2DL4 allele-5    ....N.............................................................................................   209
KIR2DL4 allele-6    ..................................................................................................   209
KIR2DL4 allele-7A   ................H....................................................................CQTQVTHC.FLSQ   209
KIR2DL4 allele-7B   ...................................Y.......................................................HC.FLSQ   209

Stem                                                 Transmembrane domain
Consensus           GNPSSSWPSPTEPSFKTGIVTHLP         Consensus           AVIRYSVATIFLTILLFFL
KIR2DL4 allele-1    ........................   240   KIR2DL4 allele-1    ...................   259
KIR2DL4 allele-2    ...................TR...   240   KIR2DL4 allele-2    I..................   259
KIR2DL4 allele-3    ........................   233   KIR2DL4 allele-3    ...................   252
KIR2DL4 allele-4    ........................   233   KIR2DL4 allele-4    ...................   252
KIR2DL4 allele-5    ..........A....*....R...   233   KIR2DL4 allele-5    V..................   252
KIR2DL4 allele-6    .....G..........NWYRHTPA   233   KIR2DL4 allele-6    CCD*VLGGHHLPHHPPLLS   252
KIR2DL4 allele-7A   ETLQVVGLH.LNQAS.LVSPHTCL   233   KIR2DL4 allele-7A   L*LGTRWPPSSSPSSSS.S   252
KIR2DL4 allele-7B   ETLQVVGLH.LNQAS.LVSSHTCL   233   KIR2DL4 allele-7B   L*LGTRWPPSSSPSSSS.S   252

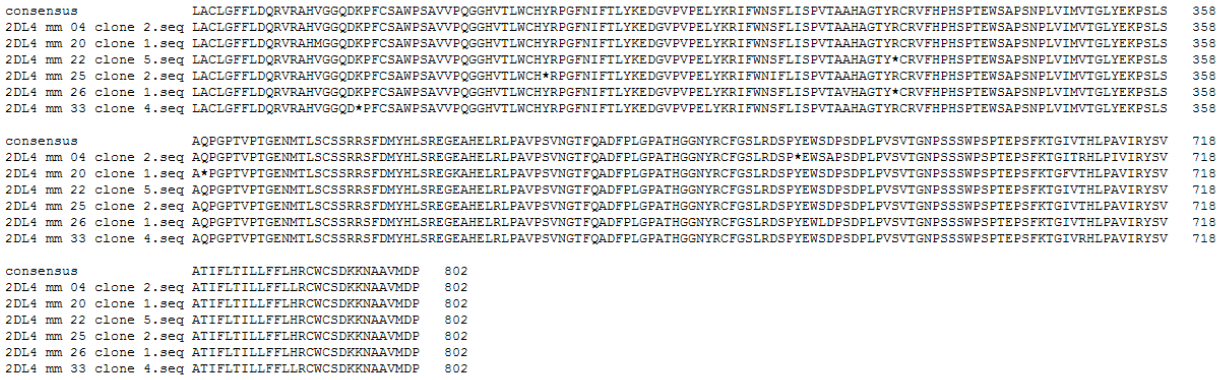
Cytoplasmic tail
Consensus           HRCWCSDKKNAAVMD
KIR2DL4 allele-1    ...............   274
KIR2DL4 allele-2    L..............   274
KIR2DL4 allele-3    .........ECCCNG   267
KIR2DL4 allele-4    ...............   267
KIR2DL4 allele-5    L..............   267
KIR2DL4 allele-6    PSLLVLRQ.ECCCNG   267
KIR2DL4 allele-7A   IVAGAPT.RMLL*WT   267
KIR2DL4 allele-7B   IVAGAPT.RMLLSWT   267
```

* stop codon

KIR2DL4 allele-1 and allele-2 refer to GenBank ac. no. EU702486 and AY728182, respectively.

SUPPLEMENT FIGURE 2

Alignment of Mamu-KIR2DL4 sequences of 6 clones from 6 monkeys with “early” stop codons showing > 98% homology with Mamu-KIR2DL4 allele 5



```
consensus               LACLGFFLDQRVRAHVGGQDKPFCSAWPSAVVPQGGHVTLWCHYRPGFNIFTLYKEDGVPVPELYKRIFWNSFLISPVTAAHAGTYRCRVFHPHSPTEWSAPSNPLVIMVTGLYEKPSLS   358
2DL4 mm 04 clone 2.seq LACLGFFLDQRVRAHVGGQDKPFCSAWPSAVVPQGGHVTLWCHYRPGFNIFTLYKEDGVPVPELYKRIFWNSFLISPVTAAHAGTYRCRVFHPHSPTEWSAPSNPLVIMVTGLYEKPSLS   358
2DL4 mm 20 clone 1.seq LACLGFFLDQRVRAHMGGQDKPFCSAWPSAVVPQGGHVTLWCHYRPGFNIFTLYKEDGVPVPELYKRIFWNSFLISPVTAAHAGTYRCRVFHPHSPTEWSAPSNPLVIMVTGLYEKPSLS   358
2DL4 mm 22 clone 5.seq LACLGFFLDQRVRAHVGGQDKPFCSAWPSAVVPQGGHVTLWCHYRPGFNIFTLYKEDGVPVPELYKRIFWNSFLISPVTAAHAGTY*CRVFHPHSPTEWSAPSNPLVIMVTGLYEKPSLS   358
2DL4 mm 25 clone 2.seq LACLGFFLDQRVRAHVGGQDKPFCSAWPSAVVPQGGHVTLWCH*RPGFNIFTLYKEDGVPVPELYKRIFWNIFLISPVTAAHAGTYRCRVFHPHSPTEWSAPSNPLVIMVTGLYEKPSLS   358
2DL4 mm 26 clone 1.seq LACLGFFLDQRVRAHVGGQDKPFCSAWPSAVVPQGGHVTLWCHYRPGFNIFTLYKEDGVPVPELYKRIFWNSFLISPVTAVHAGTY*CRVFHPHSPTEWSAPSNPLVIMVTGLYEKPSLS   358
2DL4 mm 33 clone 4.seq LACLGFFLDQRVRAHVGGQD*PFCSAWPSAVVPQGGHVTLWCHYRPGFNIFTLYKEDGVPVPELYKRIFWNSFLISPVTAAHAGTYRCRVFHPHSPTEWSAPSNPLVIMVTGLYEKPSLS   358

consensus               AQPGPTVPTGENMTLSCSSRRSFDMYHLSREGEAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSPYEWSDPSDPLPVSVTGNPSSSWPSPTEPSFKTGIVTHLPAVIRYSV   718
2DL4 mm 04 clone 2.seq AQPGPTVPTGENMTLSCSSRRSFDMYHLSREGEAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSP*EWSAPSDPLPVSVTGNPSSSWPSPTEPSFKTGITRHLPIVIRYSV   718
2DL4 mm 20 clone 1.seq A*PGPTVPTGENMTLSCSSRRSFDMYHLSREGKAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSPYEWSDPSDPLPVSVTGNPSSSWPSPTEPSFKTGFVTHLPAVIRYSV   718
2DL4 mm 22 clone 5.seq AQPGPTVPTGENMTLSCSSRRSFDMYHLSREGEAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSPYEWSDPSDPLPVSVTGNPSSSWPSPTEPSFKTGIVTHLPAVIRYSV   718
2DL4 mm 25 clone 2.seq AQPGPTVPTGENMTLSCSSRRSFDMYHLSREGEAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSPYEWSDPSDPLPVSVTGNPSSSWPSPTEPSFKTGIVTHLPAVIRYSV   718
2DL4 mm 26 clone 1.seq AQPGPTVPTGENMTLSCSSRRSFDMYHLSREGEAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSPYEWLDPSDPLPVSVTGNPSSSWPSPTEPSFKTGIVTHLPAVIRYSV   718
2DL4 mm 33 clone 4.seq AQPGPTVPTGENMTLSCSSRRSFDMYHLSREGEAHELRLPAVPSVNGTFQADFPLGPATHGGNYRCFGSLRDSPYEWSDPSDPLPVSVTGNPSSSWPSPTEPSFKTGIVRHLPAVIRYSV   718

consensus               ATIFLTILLFFLHRCWCSDKKNAAVMDP   802
2DL4 mm 04 clone 2.seq ATIFLTILLFFLLRCWCSDKKNAAVMDP   802
2DL4 mm 20 clone 1.seq ATIFLTILLFFLHRCWCSDKKNAAVMDP   802
2DL4 mm 22 clone 5.seq ATIFLTILLFFLHRCWCSDKKNAAVMDP   802
2DL4 mm 25 clone 2.seq ATIFLTILLFFLHRCWCSDKKNAAVMDP   802
2DL4 mm 26 clone 1.seq ATIFLTILLFFLHRCWCSDKKNAAVMDP   802
2DL4 mm 33 clone 4.seq ATIFLTILLFFLLRCWCSDKKNAAVMDP   802
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SUPPLEMENT FIGURE 3

Mamu-KIR1D variants of allele 9A and 9B showing deletions of thymine at position 623 (allele 9A) and adenine at position 662 (allele 9B) using the sequence of KIR1D allele 8 (previously designated KIR3DL7) as a consensus sequence

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Cytoplasmic tail
KIR1D allele-8   AGGAGGTGACATACGCACAGTTGGATCACTGCGTTTTCACACAGGGAAAAATCACTTGCCCTTCTCAGAGGTCCAAGAGACCCCCAACAGATACCAGCGT 686
KIR1D allele-9A  ....................................-...................C........................................... 691
KIR1D allele-9B  ...........................................................................-........................ 691
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