

Alignment: /home/jacobc/Desktop/seaview/seaview/data/vndVgenes.out  
Seaview [blocks=10 fontsize=10 A4] on Tue May 7 12:29:33 2013

1

|         |             |             |             |            |            |            |            |         |             |            |
|---------|-------------|-------------|-------------|------------|------------|------------|------------|---------|-------------|------------|
| vndVana | ---         | ---         | ---         | CTTTAAATCT | ---        | GA         | A          | ---     | GTC         | TCAAAAGATC |
| vndVere | ---         | ---         | ---         | CGGACCT    | ---        | GA         | AT         | ---     | GGTC        | ACATGAG    |
| vndVgri | ---         | ---         | ---         | ---        | ---        | ---        | ---        | ---     | ---         | ---        |
| vndVmel | ---         | ---         | ---         | CGGACTT    | ---        | GA         | ATGGTCGGTC | ---     | ---         | ACATGAG    |
| vndVmoj | ---         | ---         | ---         | ---        | ---        | ---        | ---        | ---     | ---         | ---        |
| vndVper | ---         | ---         | ---         | ---        | ---        | ---        | ---        | ---     | ---         | ---        |
| vndVpse | TAAAAATATGT | ATATATTTCTT | ACCAATAATC  | CGGAGATCAG | TA         | GC         | CGAAGCCAGG | ---     | ACTTTGGG    | ---        |
| vndVsec | ---         | ---         | ---         | CGAACCT    | ---        | GA         | ACAGTACATT | ---     | ACGTTGGGGAA | ---        |
| vndVsim | ---         | ---         | ---         | ---        | ---        | GA         | ATGGTCGGTC | ---     | ---         | ACATGAG    |
| vndVvir | ---         | ---         | ---         | GACCT      | ---        | GA         | ATGGTCGGTC | ---     | ---         | ACATGAG    |
| vndVwil | ---         | ---         | ---         | ---        | ---        | ---        | ---        | ACTGATT | ---         | ACTTTGGACA |
| vndVyak | ---         | CAGTTC      | ACAAATCTCTC | ATTCACAAAT | CTCGCACCTG | AATGGTCCGA | ATGGTCGGTC | ---     | ---         | ACATGAG    |

[illegible]

141

|         |             |            |            |            |            |            |  |   |             |
|---------|-------------|------------|------------|------------|------------|------------|--|---|-------------|
| vndVana | CTCATATATT  | ATATCATATA | CCCCAATTTC | TGAGTTT    |            |            |  | C | AAAGAGGCTTC |
| vndVere | TTAGAT-CTG  | CAGCGATGGA | GCTGAGTT   | ATCT       |            |            |  | T | TAGGA       |
| vndVgri |             |            |            |            |            |            |  |   |             |
| vndVmrl | TTAGAT-CTG  | TAGTAATGAA | GCCAAGTT   | ATCT       |            |            |  | T | CAGGG       |
| vndVmoj | TTTGCTTTTCG | CTGCTA     | GAAAAGTMTT | CAGTCTG    |            |            |  | T | AAAATAMTTAT |
| vndVper | ATTATCACAG  | CGTAAGGGTC | GCAAAATGAA | CTCATT     |            |            |  | T | GAGCAACCGA  |
| vndVpse | TCAAGTACTT  | GATCAAGGGA | GCAAAGTTTA | TGAATTTTTT | CATTCCAGGT | TTTCAGGCAT |  |   | CAATG       |
| vndVsec | TTAAAT-CTG  | CAGTAATGAC | GCCCAGTT   | ATCT       |            |            |  | T | CAAGG       |
| vndVsml | TTAAAT-CTG  | CAGTAATGAC | GCCCAGTT   | ATCT       |            |            |  | T | CAAGG       |
| vndVvir | TTGGAATTTG  | GGATCGAATC | GGTTCGTTTA | AAGAATCT   |            |            |  |   |             |
| vndVwil | TCAGTCAATTA | GGTTGAAGAA | GCAAAATAGT | TAAATCTT   |            |            |  | C | CATCACCTAT  |
| vndVyak | CTAAAT-CTG  | TGGTGATACA | GCCAAGTT   | ATCT       |            |            |  | T | GAAGA       |

[illegible]

281

|         |             |             |            |             |             |       |             |             |      |
|---------|-------------|-------------|------------|-------------|-------------|-------|-------------|-------------|------|
| vndVana | AAGTGTCTTG  | TAAATC      |            | ATTATA      | T           |       | ATAAA       | AATAAATACA  | ATAC |
| vndVere | AATCAATTTGG | TAA         |            | ATGCAA      | ACTGAGGA    | A     | CCGAG       | CAGAAACCCTT | TTAC |
| vndVgri |             |             |            |             |             |       |             |             |      |
| vndVmle | AATCAATTTGG | TAAAT       |            | ATTAAAA     | ACTGTGCA    | A     | CCGAA       | CAGAAACCCTA | TTAC |
| vndVmoj | AACGCTATTTC | TGTGGGGTTTT | ATTACAAATA | TCTCGAAATG  | T           | ACAAG | CCCATATCAAA | CAAA        |      |
| vndVper | GATGCTTTGTG | AGAACGGAGA  | CAGAGTGCCA | GCTGGAGTGG  | AGCTTTTCAGA |       | CAGAAAC     |             |      |
| vndVpse | ATTGATTTTAA | TGATGGCACG  | CAGAATACAA | CATTTAAGATA | T           | CTGAA | TATCAATAAA  | TTATCGGTCA  |      |
| vndVsec | AATCAATTTGG | TAAAT       |            | ATTAAAA     | ACTGTGGA    | A     | CCGAA       | CAGAAACCCTA | TTAC |
| vndVsml | AATCAGTTTGG | TAAAT       |            | ATTAAAA     | ACTGTGGA    | A     | CCGAA       | CAGAAACCCTA | TTAC |
| vndVvir | GATATTCATT  | CTAAATTAATA | TGAAAAACCA | ATTTTTGA    |             | ATGAA | CACCAATTTA  | TAAA        |      |
| vndVwil |             |             | ATTCAA     | AATGTGAATC  | T           | AGGA  | TAAGAACATA  | AAAG        |      |
| vndVyak | AATCAATTTGG | TAA         |            | ATTATA      | ACTGCGGATC  | C     | CCGAA       | GAGAAACCCTA | TTAC |

351

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vndVana      -----
vndVere      ---T-----CTCTGA-----A-----TGGTCTTG-CC-C-CATACCA---
vndVgri      -----
vndVmel      ---TATTA---T-TACCGA-----A-----TGCTCTTGGCC-T-TTTTCCA---
vndVmoj      -----
vndVper      -----
vndVpse      TTATCTATTTATTCCCTGATTGGTCTAATGGAATCAATTATGAAGTGTATCATCAGCAAAATTACTTCAACT
vndVsec      ---TATTA---CTATACTGA-----A-----TGCTCTTGGCC-T-TTTTCCA---
vndVsim      ---TATTA---C-TACTGA-----A-----TGCTCTTGTCC-T-TTTTCCA---
vndVvir      -----
vndVwil      -----
vndVyak      ---CTATTACATTCTGA-----ATGGACATGGACTTGGACTTGGTCTTGGTCT-TTTTCCA---

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421

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vndVana      ---CATAGG---GCAGGTGCGT---TGGGAAACCGTAGACACCTGCGTG-----CCACCTCCACAG
vndVere      ---TGTATCGTT---CAGGGGATTG---CGGATACCTTG---TGG-----AGTACATACA---
vndVgri      -----
vndVmel      ---TGTATCGTT---CGGAGCATGT---CAGTCTACTTG---CATC-----CGTACAT---
vndVmoj      ---TA---TCTAAACTGA---TACTCAAAGATGGCAGCTT---TCCCTAGATA---TATCATAGGCATC---
vndVper      ---ATCT---TCGATATCAT---CATCCACTCG---TTTGATATAT---CCAAGTCCAT
vndVpse      TAGATATATATTTTGGTTGGT---GGTCACTTG---TGGGCATTTG---CTTGACTAAG---CCGTAAGGAAATCCCTTCCAA
vndVsec      ---TTAATCGTT---CGGGGGATTG---AAGATACTTG---CTTC-----CGTACATACATGTAT
vndVsim      ---TTGATCGTT---CGTGGGATTG---AAGATACTTG---CTTC-----CGTACATACATGTAT
vndVvir      ---TA---TCAGGTCAGT---CAGAT-ATGT---TAGTATCTA---CCAC-----AACATATGCATGTACTT
vndVwil      -----
vndVyak      ---TGTATCGTT---CAGGGGATTG---C-----TTTCAATCTT---CCCTCATAGATTCACCT---

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491

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vndVana      AGGAGGGAGT---GTGTATGTGT---TTGTTCTCTAT-----GGGATGTGTACACAA
vndVere      ---T---ATGTATGTAC---GAGTGTACGC---ACCTGCA---GGGATGTGTACAA
vndVgri      -----
vndVmel      ---TATACATAT---ACTCGTACGC---ACCTGCA---TGCA---AGTGTACAA
vndVmoj      ---TGCATAGGT---ATTCGCTTTC---CAGTTGAGAC---AGGTGCCGTC---GACAGTGTAAAGTGTCAAAA
vndVper      CTGTCCGCCCTACCTATG-----CAAA
vndVpse      CAGATCGCAGGTGTCTCAAGG---ACCCACACAC---ACCGGCAACA---TGTGACCGA---GGCAGGGGGAAGTGTCAAAA
vndVsec      GTATGTATGTATGTATGTACATAT---ACTCGTACGC---ACCTGCA---T-CA---AGTGTACAA
vndVsim      GTATGTATGTATGTACATAT---ACTCGTACGC---ACCTGCA---T-CA---AGTGTACAA
vndVvir      GTGTACACTT---CACCACGATA---AACAGTATAC---AAGTGCAGTG---CTTAGCCCCA---CACAGAGAAGTGTCAAAA
vndVwil      ---GACACACTC---ACACACACTG---AACTG-----A---ACTGTCAAAA
vndVyak      ---CGCACATAC---TCGTTTGGCG---ACCTGCA---TGGATGTGTACAA

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561

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vndVana      TATTTCTTGGAAATCGACGA---GG-CAATTAA---AAACAATTTGATTTGAAATCAGCTAAGAAAACAGAGG---
vndVere      TATTTCCAGAAATCGATGA---GG-CAATTAA---AAGCAATTTATTTCAAATGAGCTAAGAAAACAC---
vndVgri      CATTTCTAAGAAATCGTAGC---GA-CAATTAA---AAACAATTTGATTTTAAATCAGTAAAGAAAACAAGAAAAAT
vndVmel      TATTTCTAGAAATCGATGA---GG-CAATTAA---AAACAATTTTATTTTAAATGAGCTAAGAAAACACACAACA
vndVmoj      GATTTCCAGGAAATCGTTGC---GG-CAATTAA---AAACAATTTGATTTTAAATCAGTAAAGAAAACAGAGAAGCGGA
vndVper      TAGTACTTTTGAGTGG-----AAGATACTCTGGATTTCCAGTTT---TGCCCAAAATACCCCTTTTG
vndVpse      TATTTCTTGGAAATCGATGA---GG-CAATTAA---AAACAATTTTATTTTAAATCAGCTAAGAAAACAC---
vndVsec      TATTTCTAGAAATCGATGA---GG-CAATTAA---AAACAATTTTATTTGAAATGTGCTAAGAAAACACACAACA
vndVsim      TATTTCTAGAAATCGATGA---GG-CAATTAA---AAACAATTTTATTTGAAATGAGCTAAGAAAACACACAACA
vndVvir      CATTTCCAAGGAATCGCTGC---GG-CAATTAA---AAACAATTTGATTTTAAATCAGTAAAGAAAACAGAAGCAC
vndVwil      TATTTCTTGGAAACAGCTAA---GACCAATTAA---AAACAATTTGATTTTAAATCAGCTAAGAAAATAA---
vndVyak      TATTTCCAGAAATCGATGA---GG-CAATTAA---AAACAATTTTATTTCAAATGAGCTAAGAAAACAC---

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631

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vndVana      ---ACACC---GGGCC---AAG---AAGA---
vndVere      ---AGCC---GGGCC---AAG---GAAA---
vndVgri      CTTTCAAAAAAGAGCC---AAG---ACAG---
vndVmel      C---ACAAGCC---GGGCT---AA---GAAA---
vndVmoj      AGCGAAAACAAGGCTCAAAGGCGA---
vndVper      CTGCACGCTAGACCC---ACC---GAGA---T---CGGCTTTCAC---TATATGATAT---ATGAACGGGT---AATCCGCAAA
vndVpse      ---AAGCC---GACCA---AAG---AAAACAACAC---CCACAGACAC---GGACACGGAC---ACGGAAGAA---AAGAGGCGGA
vndVsec      C---ACAAGCC---GGGCT---AA---GAAA---
vndVsim      C---ACAAGCC---GGGCT---AA---GAAA---
vndVvir      A---GACAA---GGGCCAAAAAGAGAAACAGAC---CTGGCCAGAT---CGGTCCGAGG---ACCGA---
vndVwil      ---T---GAACC---AAA---AAAA---
vndVyak      ---AAGCC---GGGCC---AAG---AAAA---ACAC---CGGCTGGCAA---ACAGAATGGG---AAGCAGAATG

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701

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vndVana  -----GAGGCGGA-----AGGAAGGTG-----CA-
vndVere  -----A CAGGACG-----GGAGCAGG-----C-GT
vndVgri  AGAGAGAGAGAGAGAGAGAG-----GGAGGAGA-----GTAGAGGCA-----C-AC
vndVmel  -----A CGGGACA-----GGAGCAGG-----ATCAGGGCA-----C-GT
vndVmoj  CCAAGTTTAGAGGG-----ATCAATCCA-----CAAA
vndVper  GGGTATCACAAGGGTCGACCGCGATGTCAGCCCTTCCCTTGGTTTTTTTTTTTCTTTGGGTT-----T-GG
vndVpse  CAAGCAGAAATGGGAAAATTGGGGAAGCAGG-----ATCAAAGCA-----A-AA
vndVsec  -----A CGGGACA-----GGAGCAGG-----ATCAGGGCA-----C-GT
vndVsim  -----A CGGGACA-----GGAGCAGG-----ATCAGGGCA-----C-GT
vndVvir  ---AGTTTAAAGGATCAATTCAGTTAGAGCCGAGGCA-----AA
vndVwil  TTGAGTTCAAAGAGAGATTCAGTTAGATTGCGGCTATTTACCCAGAGATTGCGGCTA-----AA
vndVyak  GGAAGCAGAAATGGGACA-----GGAGCAGG-----ATCAGGGCA-----C-GT

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771

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vndVana  -GGATTAAACA TTAAATGGCA TAAC-ATAAT--GAGGACT CTATTGGGGG C-----
vndVere  CGCATTAAACA TTTAAT--A TAAC-ATAAT--GA-ATTT GAATTGG--C-----
vndVgri  GTAATTCCTA TGGATTGGCA CAAC-ATAAT--GA-AAAT GTGCTGCTGG CCAGTGTCTGT CTACTA----
vndVmel  CGCATTAAACA TTTAAT--A TAAC-ATAAT--GA-ATTT GAATTTGGCCA C-----
vndVmoj  TGTATTAAACA TTTAATGGCA TAAC-ATAAT--GA-AAAT GTGCTGATCG C-----ACA CGCACA--
vndVper  GCCTTGTTTA CTTCCTGGCT CATC--CAAC GTCGCCTTCT TCGTT-GTCG CGGGGACATG TGCACA----
vndVpse  TGTATTAAAAA TTTAATGGCA TAAC-ATAAT--GA-AAAT GTATTGG--C-----
vndVsec  CGCATTAAACA TTTAAT--A TAAC-ATAAT--GA-ATTT GAATTTGGCCA C-----
vndVsim  CGCATTAAACA TTTAAT--A TAAC-ATAAT--GA-ATTT GAATTTGGCCA C-----
vndVvir  CGTATTAAACA TTTAATGGCA TAAC-ATAAT--GA-AAAT GTGCTGATCG C-----
vndVwil  GGTATTAGCA TTTAATGGCA TAACAATAAT TCGGA-ATTT ATG-TGACAA TAGAGAAAAA AGATCAAGAT
vndVyak  CGCATTAAACA TTTAAT--G TAAC-ATAAT--GA-ATTT GAATTGG--C-----

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841

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vndVana  -----TACC GAACCGGATC GAAATGG--GAAATCTAC AGAAATTGAA ATTGGAAATA AAATGAATAG
vndVere  -----TACC GAACCGGATC GAAACGA--GGTCCCT--GTCCCT--T-
vndVgri  ---CTCAAC TGCACAGATC GCATAT--GGTCCGT--GGTCCGT--T-
vndVmel  ---CACC GAGCCGGATC GAAACGA--GGTCCGT--GGTCCGT--T-
vndVmoj  ---CGCACA CATGCAGATC GCATATC--AGCCCGT--AGCCCGT--T-
vndVper  ---CATTC CAGGCATTG AAGCTTTCGA CTTTTCT--CTTTTCT--T-
vndVpse  ---TACC GAACCGGATC GAAATGAACT GAGTCTCTAC CTCCCTCCCT CCCCTACTCG ATGTCGTGT-
vndVsec  ---CACC GAGCCGGATC GAAACGA--GGTCCGT--GGTCCGT--T-
vndVsim  ---CACC GAGCCGGATC GAAACGA--GGTCCGT--GGTCCGT--T-
vndVvir  ---ACA CACACAGATC CCGTATC--AGCCCGT--AGCCCGT--T-
vndVwil  CGAGCATATA TGTATATATC ACATATATAC CATTCGGT--CATTCGGT--T-
vndVyak  ---CACC GAGCCGGATC GAAACGA--GGTCCGTGT CCCGTGTTCTG TTTCTGTTTTT GTTTTTCAG--

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911

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vndVana  AGACC-----TG GATAAGTCCC C-TGATTTTC GCACAC--
vndVere  ---CT-----CG GCTCAGT-CC C-TGATTTTC GCACAA--
vndVgri  ---CT-----TAAG-CC CGTGATTGTC GTTGGG--
vndVmel  ---CT-----CG GCTCAGT-CC C-TGATTTTC GCACAA--
vndVmoj  ---CT-----TAAG-CC CCTGATTTTC GCACAC--
vndVper  ---TT-----TT GATGGTTTCT CCGGGTTTTT GTATAT--
vndVpse  ---CTGTCTC CTTCCTTTCCT TGTATCGCAT AGATCGTATG CTTAAAT-CC C-TGATTTTC GCACAACGCT
vndVsec  ---CT-----CG GCTCAGT-CC C-TGATTTTC GCACAA--
vndVsim  ---CT-----CG GCTCAGT-CC C-TGATTTTC GCACAA--
vndVvir  ---TT-----TAAG-CC CCTGATTTTC GCACAT--
vndVwil  ---CT-----TAAGCCCC CATGATTTTC GCAACA--
vndVyak  ---CT-----CG GCTCAGT-CC C-TGATTTTC GCACAA--

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981

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vndVana  -----TT CTAAGCCAAT GTTACGGCAT TGTGAG-----
vndVere  -----TC GTAAGCCAAT GTTACAGCGC TGTGAA-----
vndVgri  -----TC CTAAGCCAAT GTTACGGCAT TGTGACGATT GCAGCGATCG
vndVmel  -----TC GTAAGCCAAT GTTACAGCGT TGTGAA-----
vndVmoj  -----A TACGGGGGG AGTGTGTTGGC CTAAGCCAAT GTTACGGCAT TGTGATG-----
vndVper  -----GTTTT CTGTATTTTT TTTGTGCTTT TTTTTTAATT T-----
vndVpse  CGCTACGGGT CGGGTCTGTCTG TGTGTGGCC CTAAGCCAAT GTTACGGCAT TGTGAA-----
vndVsec  -----TC GTAAGCCAAT GTTACAGCGT TGTGAA-----
vndVsim  -----TC GTAAGCCAAT GTTACAGCGT TGTGAA-----
vndVvir  -----AC ATACGTTGGC CTAAGCCAAT GTTACGGCAT TGTCTGTCTG GCAGCGAGCG
vndVwil  -----ATGCGCAC CTAAGCCAAT GTTACGGCAT TGTG-----
vndVyak  -----TC GTAAGCCAAT GTTACAGCGT TGTGAA-----

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1751

|         |             |             |           |             |             |        |               |
|---------|-------------|-------------|-----------|-------------|-------------|--------|---------------|
| vndVana | -----T      | GAGAAAGAGA  | -----GAG  | AGACTTTAAAT | TGG         | -----  | -----GTTTGCCC |
| vndVere | -----C      | GACAGGC AAA | -----ATT  | TGGGTTTAAAT | TGG         | -----  | -----GTTTGTCC |
| vndVgri | -----T      | GAGAGTTTCA  | CAA-----  | ATT         | TTACTTTAAAT | TGG    | -----GTTTGCCC |
| vndVmel | -----C      | GACAGGC AAA | -----ATT  | TGGGTTTAAAT | TGG         | -----  | -----GTTTGTCC |
| vndVmoj | CACTCTCTCT  | AGCTCTCTAA  | CAA-----  | ATT         | TTACTTTAAAT | TGG    | -----GTTTGTCC |
| vndVper | AACATGACAT  | AAAGTACAAA  | TAAATGGAA | TGGTTTAAAT  | TGG         | CAAAAC | AGCATTATCC    |
| vndVpse | GTACACATTT  | GACAGGC AAA | -----ATT  | TTGGTTTAAAT | TGG         | -----  | -----GTTTGTCC |
| vndVsec | -----C      | GACAGGC AAA | -----ATT  | TGGGTTTAAAT | TGG         | -----  | -----GTTTGTCC |
| vndVsim | -----C      | GACAGGC AAA | -----ATT  | TGGGTTTAAAT | TGG         | -----  | -----GTTTGTCC |
| vndVvir | GACTGAGAA   | GAGAGTTTCA  | CAA-----  | ATT         | TTACTTTAAAT | TGG    | -----GTTTGTCC |
| vndVwil | GTTTAAACACC | AAAGAGAAAA  | AAAT----- | GTT         | TTACTTTAAAT | TGG    | -----GTTTGCCC |
| vndVyak | -----C      | GACAGGC AAA | -----ATT  | TGGGTTTAAAT | TGG         | -----  | -----GTTTGTCC |

1821

|         |            |            |            |             |               |             |            |
|---------|------------|------------|------------|-------------|---------------|-------------|------------|
| vndVana | ATAA--TCGT | TGCATCGAAC | CCTCGGATTA | TCCTG       | -----GATAATAC | TGTT--TGCC  | AAATAAAACC |
| vndVere | ATAA--TCGT | TGCATCGAAC | CCTCGGATAA | TCCGG       | -----GATAATGC | TGTT--TGCC  | AAATAAAACC |
| vndVgri | ATAA--TCGT | TGCATCGAAC | CCTCGGCTAA | TCTCG       | -----GATAATAC | TGTT--TGCC  | AAATAAAAGC |
| vndVmel | ATAA--TCGT | TGCATCGAAC | CCTCGGATAA | TCCGG       | -----GATAATGC | TGTT--TGCC  | AAATAAAACC |
| vndVmoj | ATAA--TCGT | TGCATCGAAC | CCTCGGCTAA | TCTCG       | -----GATAATAC | TGTT--TGCC  | AAATAAAAGC |
| vndVper | GAGGGTTTCA | TGCAACGA-- | TTATGGACAA | ACCCAAATTAA | ACGAAAAATTT   | TGCC--TGTC  | AAATGTGTAC |
| vndVpse | ATAA--TCGT | TGCATCGAAC | CCTCGGATAA | TCTGG       | -----GATAATGC | TGTTTGTTGCC | AAATAAAACC |
| vndVsec | ATAA--TCGT | TGCATCGAAC | CCTCGGATAA | TCCGG       | -----GATAATGC | TGTT--TGCC  | AAATAAAACC |
| vndVsim | ATAA--TCGT | TGCATCGAAC | CCTCGGATAA | TCCGG       | -----GATAATGC | TGTT--TGCC  | AAATAAAACC |
| vndVvir | ATAA--TCGT | TGCATCGAAC | CCTCGGCTTA | TCTTG       | -----GATAATAC | TGTT--TGCC  | AAATAAAAGC |
| vndVwil | ATAA--TCGT | TGCATCGAAC | CCTCGGCTAA | TCTCG       | -----GATAATGC | TGTT--TGGC  | AAATAAAACC |
| vndVyak | ATAA--TCGT | TGCATCGAAC | CCTCGGATAA | TCCGG       | -----GATAATGC | TGTT--TGCC  | AAATAAAACC |

1891

|         |            |            |            |              |             |             |             |
|---------|------------|------------|------------|--------------|-------------|-------------|-------------|
| vndVana | -AATTCCCTT | -TTATTTC-C | GCTTTATGTC | ATGTTCTTGG   | TTAGATTTTC  | GCCCTCCTCGT | CTATAATGGT- |
| vndVere | -AATTCCA-T | -TTATTTC-C | GCTTTATGTC | A--TGTTGGA   | GCAG        | -----       | -----       |
| vndVgri | -AATTCTATT | TTTATTTCAC | GCTTTTGTTC | G--TTGTTGTTG | TTGTTGTTAT  | TTGTTGTTGT  | TTGTTGTTGT  |
| vndVmel | -AATTCCA-T | -TTATTTC-T | GCTTTATGTC | A--TGTTGGA   | GCCG        | -----       | -----       |
| vndVmoj | AAATTCTATT | TTTATTTC-C | ATTTTATTTT | G--TTGTTTGGC | TTGTTTGGC   | TCGCTCT     | -----GTTGT  |
| vndVper | TCTCTCTCCC | GCTCTCTC-T | CTCTCTCTC  | TCTCTCTCTC   | TCTCTCTCTC  | TCTTTCTCAC  | TCTCTCTCTC  |
| vndVpse | -AATTCCA-T | -TTATTTC-T | ACTTTATGTC | A--TGTTGGA   | TCTG--TTCCC | -----       | -----CTCCA  |
| vndVsec | -AATTCCA-T | -TTATTTC-T | GCTTTATGTC | A--TATGTTG   | GCCG        | -----       | -----       |
| vndVsim | -AATTCCA-T | -TTATTTC-T | GCTTTATGTC | A--TATGTTG   | GCCG        | -----       | -----       |
| vndVvir | -AATTCTATT | TTTATATC-C | ATTTTATTTT | -----CACGCTC | ATTGTTTTTTG | TTGTTGTTGT  | TTGTTGTTGT  |
| vndVwil | CAATTCTATT | ATTGTATT-T | GTATTATATG | TATTTATGTT   | CATGTTATTC  | TCTCTCATAT  | TCTGGTTTTC  |
| vndVyak | -AATTCCA-T | -TTATTTC-T | GCTTTATGTC | ATGTGTGTGA   | GCAGGATCGC  | TCCTCGCTG   | -----ATCGC  |

1961

|         |            |             |            |            |            |             |            |
|---------|------------|-------------|------------|------------|------------|-------------|------------|
| vndVana | --GGATATAT | ACTCTAGTTC  | ATTCAATA   | -----      | -----      | -----       | -----      |
| vndVere | --AATCGGT  | ACCCGCTTTC  | ATTGATG    | -----      | -----      | -----       | -----      |
| vndVgri | --GTTGCAA  | CTTCGCTTTC  | ATTGATGTTT | TGG--TTAA  | GCTGAGCCTG | GTCGGTAGTT  | TATTTGGGAT |
| vndVmel | --GATCGCT  | ACCCGCTTTC  | ATTGATG    | -----      | -----      | -----       | -----      |
| vndVmoj | --CACACGG  | ATAATTTC    | ATTGATGTTT | TTGGCCAAAA | ACTGAGCCGC | TGCCCTGGGTT | T-----T    |
| vndVper | TCGGCTTCAC | TCTCTCACTC  | AGTTCTGTTT | GTTGTA     | -----      | -----       | -----      |
| vndVpse | -CTTTCTGC  | AACCTTATTC  | ATTGATG    | -----      | -----      | -----       | -----      |
| vndVsec | --GATCGCT  | ACCCGCTTTC  | ATTGATG    | -----      | -----      | -----       | -----      |
| vndVsim | --GATCGCT  | ACCCGCTTTC  | ATTGATG    | -----      | -----      | -----       | -----      |
| vndVvir | ---TTTGA   | ATCATTTTTC  | ATTGATG--T | TTTGGCCAAA | ACTGAGCCTG | GTCGGGAGCT  | CTCTGGGATT |
| vndVwil | ---CTTGGCT | ATTATATTTTC | ATTGATGCGC | TTTCCATGT  | TTTTTACCTA | CTCCGGATCT  | TAGGGA     |
| vndVyak | --TGATCGCT | ACCCGCTTTC  | ATTGATG    | -----      | -----      | -----       | -----      |

2031

|         |            |            |            |            |             |             |            |
|---------|------------|------------|------------|------------|-------------|-------------|------------|
| vndVana | -----GA    | -----      | -----      | -----      | -----TC     | TCCTC       | -----      |
| vndVere | -----AA-C  | CACAGG     | -----      | -----      | -----ATC    | -----       | -----GTA   |
| vndVgri | TTTCCCCAGC | CACAGGTTGC | ATTTAGCATG | TTTTTATTTT | A-----      | GTT         | TTCTTCACTC |
| vndVmel | -----AA-C  | CGCAGG     | -----      | -----      | -----ATC    | TCGGT       | -----TGAG  |
| vndVmoj | TCCCTTGGGC | CACAGGTTGC | AAATTCGTTT | TTCTTCTTCT | TTTTTTTTTTT | TTTTTTTTTTT | TGTTTCTTT  |
| vndVper | -----TTTC  | CAACCG     | -----      | -----      | -----ATT    | TCACTAAACA  | TGTTTCTTTG |
| vndVpse | -----GATC  | TGCTCA     | -----      | -----      | -----GTC    | TCAGT       | -----CTCAG |
| vndVsec | -----AA-C  | CGCAGG     | -----      | -----      | -----ATC    | TCCGTACGTA  | TGTACGTGTG |
| vndVsim | -----AA-C  | CGCAGG     | -----      | -----      | -----ATC    | TCCGTACGTA  | TGTACGTGTG |
| vndVvir | TTCCC-GTGT | CACAGGTTGC | ATTTCGGTTG | TTTTTCTCTG | TTTTTTTTTTT | TTGCTTGTGT  | CTTTTTTTT  |
| vndVwil | -----ATTTC | CCCTAACCGC | AACAGCAGGT | CTTCTTTTCC | TTTCAATTAT  | TTGATCAGTA  | TTTGTGTTT  |
| vndVyak | -----AA-C  | CGCAGG     | -----      | -----      | -----ATC    | GTCGC       | -----      |

2101

|         |            |            |            |            |            |             |            |            |            |       |     |     |
|---------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|-------|-----|-----|
| vndVana | ---        | G          | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |
| vndVere | TATG       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |
| vndVgri | TGGC       | ---        | ---        | AGGACAC    | AGGTGTGTCG | GCAGGATCTT  | TCGCAATTTT | GTGCCATTGT | GCCACCTTGA | ---   | --- | --- |
| vndVmel | TATG       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |
| vndVmoj | TTTGTGTATT | TCATGGAGCA | CAGGTGTGTG | CTCGAG     | ---        | ---         | ---        | ---        | ---        | CTGA  | --- | --- |
| vndVper | TTTT       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | TCAAA | --- | --- |
| vndVpse | TCTC       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |
| vndVsec | TACG       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |
| vndVsim | TACG       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |
| vndVvir | TCTG       | TGCG       | TCATGCTGCA | CAGGTGTGTG | GCAAAATCTT | TCGCAAAATTC | CTGCCATTGT | G          | CGCCCTTA   | ---   | --- | --- |
| vndVwil | TTTA       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |
| vndVyak | TGTG       | ---        | ---        | ---        | ---        | ---         | ---        | ---        | ---        | ---   | --- | --- |

2171

|         |            |            |            |            |            |            |       |     |     |     |     |     |
|---------|------------|------------|------------|------------|------------|------------|-------|-----|-----|-----|-----|-----|
| vndVana | ---        | ---        | ---        | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVere | ---        | ---        | ---        | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVgri | AATCCAAAGG | TAATCTTAAT | TAAGAAAGTG | TCCTTTAAGC | AACTGTTGCA | TTGTGTGTGT | TCGTG | GC  | --- | --- | --- | --- |
| vndVmel | ---        | ---        | ---        | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVmoj | AATCCAGCTG | TAATTTAAAT | TAGAAATCTT | GTTTGTGTG  | TCTGCGCTG  | ---        | ---   | --- | --- | --- | --- | --- |
| vndVper | AACCCCGCCG | CAGTTGCGAA | GGGCAGGATG | A          | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVpse | ---        | ---        | ---        | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVsec | ---        | ---        | ---        | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVsim | ---        | ---        | ---        | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVvir | AGTCCAGCAT | TAATTATAAC | TAAGAGAGTC | T          | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVwil | ---        | ATTAAAAAT  | TA         | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |
| vndVyak | ---        | ---        | ---        | ---        | ---        | ---        | ---   | --- | --- | --- | --- | --- |

2241

|         |            |            |           |     |             |            |              |           |           |     |     |     |
|---------|------------|------------|-----------|-----|-------------|------------|--------------|-----------|-----------|-----|-----|-----|
| vndVana | CGCTTCCATA | T          | ---       | --- | ---         | ---        | ---          | ---       | ---       | --- | --- | --- |
| vndVere | AACCCATATA | C          | ---       | --- | ---         | ---        | ---          | ---       | ---       | --- | --- | --- |
| vndVgri | AATTTGTATA | TTTGTATTGA | GGCTA     | AT  | TTCAATGTTTA | CCCATATACC | A            | CAAATTTGT | TTGCTTAAC | --- | --- | --- |
| vndVmel | AACTCATATA | C          | ---       | --- | ---         | ---        | ---          | ---       | ---       | --- | --- | --- |
| vndVmoj | AATTTGTATA | TTTGTATTGA | TTTCT     | TC  | TCAATGCTGT  | TCAAGTTTCT | ---          | ---       | ---       | --- | --- | --- |
| vndVper | AAATAATGGG | CATTGTTGGT | TCTCG     | GC  | TATGTTCTGT  | TCTGTTCTCA | ---          | ---       | ---       | --- | --- | --- |
| vndVpse | CAGTCCTAGA | C          | ---       | --- | ---         | ---        | ---          | ---       | ---       | --- | --- | --- |
| vndVsec | AACTCATATA | C          | ---       | --- | ---         | ---        | ---          | ---       | ---       | --- | --- | --- |
| vndVsim | AACTCATATA | C          | ---       | --- | ---         | ---        | ---          | ---       | ---       | --- | --- | --- |
| vndVvir | AATTTGTATA | TTTGTATTGA | GTTCT     | AC  | CTCATGTTAT  | ACCACAAATC | CGCAAAATTTGT | TTGGTTTCT | ---       | --- | --- | --- |
| vndVwil | TATTCTTACA | CTTCAGTTGA | TGTTTGGGG | --- | CATGAAAAAT  | GCTAGAAGCA | AAATAAAAC    | ---       | ---       | --- | --- | --- |
| vndVyak | AACTCTTATA | CGGAATACCG | AAATAC    | TG  | AAATACCTTAT | ACCCAATACC | C            | ---       | ---       | --- | --- | --- |

2311

|         |           |            |            |            |            |            |            |            |     |     |     |     |
|---------|-----------|------------|------------|------------|------------|------------|------------|------------|-----|-----|-----|-----|
| vndVana | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVere | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVgri | GAAGTTTGT | GCTTGCACAA | GCAAAACACA | AGCAAAATTA | AACACTTTAG | AGAATTTCGA | GATCGCGTTT | ---        | --- | --- | --- | --- |
| vndVmel | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVmoj | ---       | ---        | ---        | ---        | ---        | AAA        | ACAAAAGCGA | AAGAATGTGC | --- | --- | --- | --- |
| vndVper | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVpse | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVsec | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVsim | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVvir | TTAGTTTGT | GCTTGCACAA | ACAAGAACCA | AAAAGA     | ---        | TAA        | AAAATCCAAA | GATCTCGTCT | --- | --- | --- | --- |
| vndVwil | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | --- |
| vndVyak | ---       | ---        | ---        | ---        | ---        | ---        | ---        | ---        | --- | --- | --- | A   |

2381

|         |             |            |             |            |            |            |             |            |         |     |     |     |
|---------|-------------|------------|-------------|------------|------------|------------|-------------|------------|---------|-----|-----|-----|
| vndVana | ---         | ---        | GGCAGG      | TCCTGTCCC  | G          | ---        | GGAAA       | TTCCCTGCC  | ---     | --- | --- | --- |
| vndVere | CTACACCTCA  | TATACCCAGC | GCTTAGTCCC  | G          | CTTTCA     | ATCTCGGATT | TTCCCTGCCA  | CAGCAGT    | ---     | --- | --- | --- |
| vndVgri | GCTTAATGCA  | AATAGTTCTC | ACACTGC     | ---        | TCA        | GTCAAACATA | TATCCGAAC   | CT         | ---     | --- | --- | --- |
| vndVmel | ---         | CC         | AATACCCAGC  | GCTTAGTCCC | G          | CTTTCA     | ATCTCGGA-A  | TTCCCTGCCA | CTGCCGT | --- | --- | --- |
| vndVmoj | ACAGATCGCA  | AGTAAATAG  | ---         | TTGCCCTC   | A          | AACCA      | GTCAAACATC  | TGAGTCGATT | CTTTATT | --- | --- | --- |
| vndVper | ---         | ---        | TTGTTGAGC   | TCCTTACCT  | ACCTTACCAT | ATCCTATCCT | GTCCCTGGTCT | GGTCTGG    | ---     | --- | --- | --- |
| vndVpse | ---         | CC         | AGT-CCCAGT  | ATCT-GTACT | GGAAATTCGA | ATCCT      | ---         | CTTCGTGCC  | CGTTCCC | --- | --- | --- |
| vndVsec | ---         | CG         | AATACCCAGC  | GCTTAGTCCC | G          | CTTTCA     | ATCTCGGA-A  | TTCCCTGCCA | CGGCCGT | --- | --- | --- |
| vndVsim | ---         | CG         | AATACCCAGC  | GCTTAGTCCC | G          | CTTTCA     | ATCTCGGA-A  | TTCCCTGCCA | CGGCCGT | --- | --- | --- |
| vndVvir | GC AAAATGCA | AATAGTTCTC | ACAGTGTCTC  | AAGCAAGCCA | GTCAAACAAC | AGGCCAGCG  | CTTCTTCAAT  | ---        | ---     | --- | --- | --- |
| vndVwil | ---         | CA         | AACAAACTTT  | ACCCATTCTT | T          | TCATTCA    | TTCAATGCAC  | ACACTTG    | ---     | --- | --- | --- |
| vndVyak | ATAC        | CC         | AATAACCCAGC | GCTTAGTCCC | G          | CTTTCA     | ATCTCGGAAT  | TCCCTGCCA  | CAGCAGT | --- | --- | --- |

2451

|         |            |            |            |            |            |             |            |            |
|---------|------------|------------|------------|------------|------------|-------------|------------|------------|
| vndVana | -----      | -----      | -----      | -----      | -----      | -----       | -----      | CA         |
| vndVere | -----      | CGTAGCT    | -----      | -----      | -----      | -----       | -----      | TCGAGCG    |
| vndVgri | -----      | -----      | -----      | AGCCGAAAA  | AAAAGAGAAA | ATAAAATAAAT | AAATACAAAA | -----      |
| vndVmel | -----      | CGTAGCT    | -----      | -----      | -----      | -----       | -----      | TCGAACG    |
| vndVmoj | -----      | TATATTT    | -----      | ATGC       | ATATACATAA | GTATATCTGT  | ATATCCGTAT | ATCTCTGTAG |
| vndVper | -----      | TCTGGTCTG  | GTCTCG     | -----      | -----      | -----       | -----      | TCTGACA    |
| vndVpse | -----      | CATATGC    | -----      | -----      | -----      | -----       | -----      | TAAGGTA    |
| vndVsec | -----      | CGTAGCT    | -----      | -----      | -----      | -----       | -----      | TCGAACG    |
| vndVsim | -----      | CGTAGCT    | -----      | -----      | -----      | -----       | -----      | TCGAACG    |
| vndVvir | ATATATATAT | ATATAAATAT | ATATATATAT | ATATATATAT | ATATATATAT | ATAAAATAAAT | AAATATGAAA | -----      |
| vndVwil | -----      | -----      | -----      | -----      | -----      | A           | GGAGGGAAAA | AAACACCACG |
| vndVyak | -----      | CGCAGCT    | -----      | -----      | -----      | -----       | -----      | TTGGAACG   |

2521

|         |             |             |             |            |            |             |            |       |
|---------|-------------|-------------|-------------|------------|------------|-------------|------------|-------|
| vndVana | CCAAGT      | -----       | -----       | -----      | -----      | -----       | -----      | ----- |
| vndVere | GCAGGTTGGG  | TTTTTCGGTC  | GG          | -----      | TGCGGAA    | GCCCCGTTTT  | T          | ----- |
| vndVgri | CCAGTTAGCC  | TTTATTTTT   | G           | -----      | -----      | CCCCTTT     | GGCATTCT   | ----- |
| vndVmel | GCAGGTTGGG  | TTTTTCCTTTC | GT          | -----      | TACGG-A    | CCCCCTTTG   | C          | ----- |
| vndVmoj | CCAGTTGGTC  | TCCTTAGTTT  | GT          | -----      | -----      | CCCCTTTTG   | AACAGTC    | ----- |
| vndVper | CCTTTTTGGC  | TGGGCTTATC  | TTCCAGCCAG  | CCATCCAGTC | AGTC       | -----       | -----      | ----- |
| vndVpse | GCAGGTTGGG  | TTTTTCCTCCA | GTGCCCAACAG | GTGTCCGTAA | ACCATTTTTT | TTGGTTGTGTG | ATCGGGATCG | ----- |
| vndVsec | GCAGGTTGGG  | TTTTTCCTTTC | GT          | -----      | TACGGAA    | CCCCCTTTG   | C          | ----- |
| vndVsim | GCAGGTTGGG  | TTTTTCCTTTC | GT          | -----      | TACGGAA    | CCCCCTTTG   | C          | ----- |
| vndVvir | CCAGTTAGGC  | CCTTTAAGTT  | GC          | -----      | -----      | CCCTTTT     | CACAGTC    | ----- |
| vndVwil | ACAAAATACGA | CAAGC       | -----       | -----      | -----      | -----       | -----      | ----- |
| vndVyak | GCAGGTTGGG  | TTTTTCCTTTC | GC          | -----      | T          | TCCCCTTTC   | G          | ----- |

2591

|         |            |            |             |            |            |            |            |       |
|---------|------------|------------|-------------|------------|------------|------------|------------|-------|
| vndVana | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVere | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVgri | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVmel | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVmoj | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVper | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVpse | CCGGCGAAGT | ATGTTTTTTG | TGTTGGTTGCA | TCGAGACTTT | TAAAGAAACT | TCTGCCTGGC | CCACTTGTAT | ----- |
| vndVsec | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVsim | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVvir | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVwil | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |
| vndVyak | -----      | -----      | -----       | -----      | -----      | -----      | -----      | ----- |

2661

|         |             |            |            |            |            |           |             |           |
|---------|-------------|------------|------------|------------|------------|-----------|-------------|-----------|
| vndVana | -----       | GGTAAGG    | -----      | -----      | -----      | -----     | -----       | -----     |
| vndVere | -----       | GGAAAGGGC  | GCA        | -----      | -----      | -----     | -----       | -----     |
| vndVgri | -----       | TGCGCACTT  | GTA        | -----      | -----      | -----     | -----       | -----     |
| vndVmel | -----       | AGAAAGGGC  | GCA        | -----      | -----      | -----     | -----       | -----     |
| vndVmoj | -----       | GGCGCGCAC  | TCACCTTCAC | TCACCTTCAC | TCACCTTCAC | GTGCTGGAG | -----       | -----     |
| vndVper | -----       | AGTGAGCCG  | GGG        | -----      | -----      | ATCCTGGC  | TAACCTGTAGT | CCA       |
| vndVpse | TTGGAAATGCA | GGGGAGGGCT | GGA        | -----      | -----      | ACT       | TGAAGG      | GCACCAAGG |
| vndVsec | -----       | AGAAAGGGC  | TCA        | -----      | -----      | GCC       | TGAAGG      | ACAAC     |
| vndVsim | -----       | AGAAAGGGC  | GCA        | -----      | -----      | GCC       | TGAAGG      | ACAAC     |
| vndVvir | -----       | TGCGCACTC  | -----      | -----      | -----      | ACT       | TGT         | GTCTGGAG  |
| vndVwil | -----       | AGAACGACA  | ACA        | -----      | -----      | ACT       | TGAAGG      | ACA       |
| vndVyak | -----       | GGAA       | -----      | -----      | -----      | CT        | TGAAGG      | ACAAC     |

2731

|         |             |            |            |            |            |            |            |            |
|---------|-------------|------------|------------|------------|------------|------------|------------|------------|
| vndVana | -----       | -----      | -----      | -----      | -----      | -----      | -----      | -----      |
| vndVere | -----       | TGAAAGC    | GGACGGGCTA | CTC        | -----      | CGCTACACTT | GTCC       | GG         |
| vndVgri | -----       | TAGAACAC   | GGACAC     | -----      | -----      | CGCTACTCTC | GTCT       | -----      |
| vndVmel | -----       | TGAAAGC    | GGA        | -----      | -----      | CTATGCACTT | GTCT       | GGC        |
| vndVmoj | -----       | TTGAAAA    | GGACAC     | -----      | -----      | CGCTACTCTT | GTCT       | -----      |
| vndVper | -----       | TTTACAAA   | TGCCGTAAAC | TTGGCTTAGG | -----      | CTATGCACTT | GTCT       | GGC        |
| vndVpse | ACACCAAAAGT | ATATGGACAC | GGACACGGA  | -----      | -----      | GCCAACACAC | GACGAGCCGA | GCCGTAGCGA |
| vndVsec | -----       | TGAAAGC    | GGA        | -----      | -----      | CGCTACACTT | GTCT       | GGC        |
| vndVsim | -----       | TGAAAGC    | GGA        | -----      | -----      | CGCTACTCTA | GTCT       | -----      |
| vndVvir | -----       | TGAAAA     | GGACAC     | -----      | -----      | CGCTACTCTT | GTCT       | -----      |
| vndVwil | -----       | -----      | GGACAC     | -----      | -----      | CTATGCACTT | GTCT       | GGC        |
| vndVyak | -----       | TGAAAAAC   | GGACGGGCTA | CTCTACTCTA | CTCTACGCTC | CCATACACTT | GTCT       | AAAC       |



2801

|         |             |             |             |             |            |            |            |
|---------|-------------|-------------|-------------|-------------|------------|------------|------------|
| vndVana | ATGAAGTTTCG | AAAA--AATA  | ATTTTCATTTC | AAAAAGTTAC  | TTCCATTCCA | AAAAAATAAA | AAAAAGCAGC |
| vndVere | ATGAGGTTTCG | AAAA--AATA  | ATTTTCATTTC | ----        | TAACGCA    | GAGTCCCCCA | AAGCA----  |
| vndVgri | ATGAAGTTTCG | AAAA--CATA  | ATTTTATTTTG | ATGATACTAT  | TTTTATTAAT | AAAAC      | -----      |
| vndVmel | ATGAAGTTTCG | AAAA--AATA  | ATTTTCATTTC | ----        | TAACGCA    | GAGTCCCCCA | AAGCA----  |
| vndVmoj | ATGAAGTTTCG | AAAA--CATA  | ATTTTATTTTG | ATGATACTAT  | T          | -----      | -----      |
| vndVper | GCGTTGTGGG  | AAAAATCAGGG | ATTTAAGC    | ----        | ----       | ----       | -----      |
| vndVpse | ATGAAGTTTCG | AAAA--AATA  | ATTTTCATTTC | ATGCCATCGC  | CGCGAAGGCA | GCTCCCCAAA | AACGC----  |
| vndVsec | ATGAAGTTTCG | AAAA--AATA  | ATTTTCATTTC | ----        | TAACGCA    | GAGTCCCCCA | AAGCA----  |
| vndVsim | ATGAAGTTTCG | AAAA--AATA  | ATTTTCATTTC | ----        | TAACGCA    | GAGTCCCCCA | AAGCA----  |
| vndVvir | ATGAAGTTTCG | AAAA--CATA  | ATTTTATTTTG | ATGATACTAT  | TTTTATTAAT | AAAACAAAAA | AAGTA----  |
| vndVwil | ATGAAGTTTCG | AAAA--TATA  | ATTTTACTTC  | ATTTTTTTTAT | TAATAAAGAA | AAAAAC     | -----      |
| vndVyak | ATGAAGTTTCG | AAAA--AATA  | ATTTTCATTTC | ----        | TAACGCA    | GAGTCCCCAG | AAGCA----  |

2871

|         |            |              |             |            |            |             |            |
|---------|------------|--------------|-------------|------------|------------|-------------|------------|
| vndVana | CAGTCACTCA | AGTTGAACGT   | ---ACTTATA  | TATATATATA | TATTT      | -----       | TA-----T   |
| vndVere | -AGTCATTCA | AGTTTGACGT   | TGAAGTACCA  | GAGAACCCAA | GAACCAAAA  | -----       | AA-----A   |
| vndVgri | -AAAAATACG | AAAAAAAAAAAA | AGCACACCCA  | TAACAAAAAA | TAA--AAAAA | AAGGGAAAAA  | GTCA-----A |
| vndVmel | -AGTCATTCA | AGTTTGACGT   | ---ACTTCAA  | AAGAACC    | -----      | -----       | AA-----A   |
| vndVmoj | -----      | -----        | -----       | -----      | -----      | -----       | -----      |
| vndVper | -ATACGATCT | ATGCGATCAC   | AGGAAAGAAG  | GAGACAGACA | GACATCGAGT | AGGGGAGGGA  | GGGA-----G |
| vndVpse | -AGTCACTCA | AGTTGAACGT   | ---ACTCCA   | AAGAAC--AA | GAACAAAATT | AAAAAAAAAGC | GACA-----A |
| vndVsec | -AGTCATTCA | AGTTTGACGT   | ---ACTTCAA  | AAGAAAC    | -----      | -----       | AA-----A   |
| vndVsim | -AGTCATTCA | AGTTTGACGT   | ---ACTTCAA  | AAGAAAC    | -----      | -----       | AA-----A   |
| vndVvir | -----      | -----        | ---ACAAAAAG | AAGAAAAAAG | AA         | -----       | -----A     |
| vndVwil | -AAAGACCCA | AAATCAAGTC   | ATAACAATAA  | TAGAAAAAAA | AGAGCCAAAA | AAAGAAACAA  | CTCAAACTCA |
| vndVyak | -AGTCATTCA | AGTTTGACGT   | TGAAGTACCA  | AGGAACCCAA | GAGCCAAAGA | ACCAAAAAAA  | CCAA-----A |

2941

|         |              |             |             |             |             |            |            |
|---------|--------------|-------------|-------------|-------------|-------------|------------|------------|
| vndVana | ATATATATA--- | -----GTTG   | TGTATATATT  | TGTATATAAA  | AATATAAAAA  | AA-----AAC | T-----A    |
| vndVere | AAAAAAT---   | -----ATAA   | AAAAACAGCGC | CGTA--AAAA  | ACTACG-AAA  | GAGCAT-GGC | A-----A    |
| vndVgri | AGAGAAGCGT   | TACTAAACGC  | AATTCGGAAA  | CGCAGCCAGT  | CAAGTTGAAC  | GTACTC     | -----      |
| vndVmel | AAATACA---   | -----ATAA   | AAAAACAGCGC | CGCAGAAAAA  | ACTACGAAAA  | GAGCAT-GGC | A-----A    |
| vndVmoj | -----        | -----       | -----       | -----       | -----       | -----      | -----      |
| vndVper | GTAGAGACTC   | AGTTTCATTTC | GATCCGGTTC  | GGTAGCCAAAT | ACAAATTTTCA | TATGTTATGC | C-----A    |
| vndVpse | AAAAAAT---   | -----ACAG   | AAAAACA     | ---TATACGAA | AACCCGGAGA  | AACCATCAAA | A-----A    |
| vndVsec | AAATATATA--- | -----ATAA   | AAAAACAGCAC | CGCAT--AAAA | ACTACGAAAA  | GAGCAT-GGC | A-----A    |
| vndVsim | AAA--A       | -----ATAA   | AAAAACAGCGC | CGCAT--AAAA | ACTACGAAAA  | GAGCAT-GGC | A-----A    |
| vndVvir | CGTTAAGCGT   | TACTAAACGC  | AACTCGGGAA  | CGCAGTCAGT  | CAAGTTGAAC  | GTACTC     | -----      |
| vndVwil | AAAAATCCAG   | TACTAAACGC  | AATTCGAAAA  | CGCAACCAGT  | CAAGTTGAAC  | GTACTCCAAA | AGAAACAATA |
| vndVyak | AAATATC---   | -----ATAA   | AAAAACAGCGG | CGTA--TAAA  | ACTACGAAGA  | GAGCAG-GGC | A-----A    |

3011

|         |             |            |            |             |            |             |            |
|---------|-------------|------------|------------|-------------|------------|-------------|------------|
| vndVana | AAAGATCTAA  | CCA-----A  | AAAAAA     | -----       | -----      | -----       | -----      |
| vndVere | TAAAAGGTTG  | TCA-----G  | CTTCAA     | -----       | -----      | -----       | -----      |
| vndVgri | -AAAAAATCG  | TAA-----G  | CTTCAA     | -----       | -----      | -----       | -----      |
| vndVmel | TAAAAGGTTG  | TCA-----G  | CTTCAA     | -----       | -----      | -----       | -----      |
| vndVmoj | -----       | -----      | -----      | -----       | -----      | -----       | -----      |
| vndVper | TTAAATTTTA  | ATACATTTTG | CTTTGATCGT | GCTTCCCAAAT | TTCCCAATTC | TGCTTGTCGG  | CCTCTTTTCT |
| vndVpse | GAAAAAGTCG  | AAA-----G  | CTTCAA     | -----       | -----      | -----       | -----      |
| vndVsec | TAAAAGGTTG  | TCA-----G  | CTTCAA     | -----       | -----      | -----       | -----      |
| vndVsim | TAAAAGGTTG  | TCA-----G  | CTTCAA     | -----       | -----      | -----       | -----      |
| vndVvir | -CAAAAATCG  | TAA-----G  | CTTCGA     | -----       | -----      | -----       | -----      |
| vndVwil | CAAAAACCTCC | AAATAATATA | CATATATATA | TATACATATA  | TATATATATA | TTTATATTTGT | GGTATAGCAA |
| vndVyak | TAAAAGGTTG  | TCA-----G  | CTTCAA     | -----       | -----      | -----       | -----      |

3081

|         |             |            |            |            |            |             |            |
|---------|-------------|------------|------------|------------|------------|-------------|------------|
| vndVana | -----       | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCT  | -----CT     | CTGAAG     |
| vndVere | -----       | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCC  | -----GCG    | ACGATGGTG  |
| vndVgri | -----       | ATGGCTGGGA | ATGTG      | -----TG    | CACATGTTG  | -----ATGTCG | TCGTTGTTG  |
| vndVmel | -----       | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCC  | -----GCG    | ACGATGGTG  |
| vndVmoj | -----       | -----      | -----      | -----      | -----      | -----       | -----      |
| vndVper | GTCGGTGTCC  | GTGTCTGTGG | GTGTGTTTTT | CTTTGGTCCG | CTTGTGTTTT | -----TCT    | TAGCTGATTT |
| vndVpse | -----       | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCCC | AGCGACAACG  | AAGAAGGCG  |
| vndVsec | -----       | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCC  | -----GCG    | ACGATGGTG  |
| vndVsim | -----       | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCC  | -----GCG    | ACGATGGTG  |
| vndVvir | -----       | ATGCCTGGGA | ATATG      | -----AG    | CACATGTCTG | -----TCG    | TCGTGCGCGT |
| vndVwil | AAAAAAAAAAT | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCTG | -----TCG    | TCATTGCCA  |
| vndVyak | -----       | ATGCCTGGGA | ATGTG      | -----TG    | CACATGTCC  | -----GCG    | ACGATGGTG  |

3151

|         |            |             |              |            |          |        |         |            |            |
|---------|------------|-------------|--------------|------------|----------|--------|---------|------------|------------|
| vndVana | -----      | -----       | -----TCG     | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVere | -----      | -----       | -----ACGACCG | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVgri | -----      | -----       | -----CCGTCCG | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVmel | -----      | -----       | -----ACGACCG | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVmoj | -----      | -----       | -----        | -----      | -----    | -----  | -----   | -----      | -----      |
| vndVper | TAAATTAAAT | TGTTTTTAAAT | TGCGTCATCG   | AT         | -----TT  | C      | -----C  | AGGAAATATT | TTGACACTTC |
| vndVpse | -----      | -----       | -----ACGTTGG | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVsec | -----      | -----       | -----ACGACCG | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVsim | -----      | -----       | -----ACGACCG | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVvir | CGTCATCATC | ATCAACATCG  | TGCCCGTCGG   | AT         | -----GAG | C      | -----C  | AGGAA      | -----      |
| vndVwil | -----TCATT | CTTGTCTGTG  | AGGTTACTGG   | AT         | -----GAG | CCC    | AAAAATC | AGGAA      | -----      |
| vndVyak | -----      | -----       | -----ACGACCG | ATGAGCCGAG | C        | -----C | -----C  | AGGAA      | -----      |

3221

|         |              |              |           |              |             |             |             |             |             |
|---------|--------------|--------------|-----------|--------------|-------------|-------------|-------------|-------------|-------------|
| vndVana | -----        | -----GTAAACA | -----     | -----        | AAAGCC      | CAAAAAACC   | GC          | AGGAAA      | AAAAT       |
| vndVere | -----        | -----GTAAACA | -----     | -----        | AAGCCC      | -----AAACCC | AC          | AAGAAA      | AAATTTCAGAG |
| vndVgri | -----        | -----GTAAACA | -----     | -----        | -----       | -----AAACCC | AC          | ACGAAT      | A           |
| vndVmel | -----        | -----GTAAACA | -----     | -----        | AAGCCC      | -----AAACCC | AC          | AAGAAA      | AAATTTCAGAG |
| vndVmoj | -----        | -----        | -----     | -----        | -----       | -----       | -----       | -----       | -----       |
| vndVper | CCCCGTGCCCTC | GGTAGACATG   | TTCGGGTGT | GTGTGGGTCC   | TTGAGCACCT  | GC          | -----       | -----       | -----       |
| vndVpse | -----        | -----GTAAACA | -----     | -----AGGCC   | -----AAACCC | AAAG        | AAAAAA      | AAAA        | CCAAAG      |
| vndVsec | -----        | -----GTAAACA | -----     | -----AAGCCC  | -----AAACCC | AC          | -----AAGAAA | AAATTTCAGAG | -----       |
| vndVsim | -----        | -----GTAAACA | -----     | -----AAGCCC  | -----AAACCC | AC          | -----AAGAAA | AAATTTCAGAG | -----       |
| vndVvir | -----        | -----GTAAACA | -----     | -----        | -----AAACAT | AC          | -----       | -----       | -----       |
| vndVwil | -----        | -----GTAAACA | -----     | -----CAGGGCC | -----AGCCCC | AT          | -----       | -----       | -----       |
| vndVyak | -----        | -----GTAAACA | -----     | -----AAGCCC  | -----AAACCC | AC          | -----AAGAAA | AAATTTCAGAG | -----       |

3291

|         |                |             |              |                |                |            |            |       |         |
|---------|----------------|-------------|--------------|----------------|----------------|------------|------------|-------|---------|
| vndVana | -----          | -----GTGTTC | -----CGACTT  | GTGGATGATC     | TAGAACGAAC     | TACCCATCAC | C          | ----- | -----   |
| vndVere | CAATTTTCAG     | GGCACATATC  | -----CGACC   | -----          | -----TGCGAAT   | CACCTGTCTT | C          | ----- | -----   |
| vndVgri | -----          | -----       | -----        | -----GTGAGC    | CAGTATTTAA     | AACGTGTGCT | G          | ----- | -----   |
| vndVmel | CAATCGC        | GGCACATATC  | -----CGACC   | -----          | -----TTTGAAT   | CACCTGTCTT | C          | ----- | -----   |
| vndVmoj | -----          | -----       | -----        | -----          | -----          | -----      | -----      | ----- | -----   |
| vndVper | -----GATCTCTTG | GAAGGATTTC  | CTTACGGGT    | -----TAGTCAAGC | AAATGCCAC      | AACTGACCAG | C          | ----- | -----   |
| vndVpse | GAA            | GGCCGACATC  | GGGTGACCC    | TTGTGATACC     | CTTTGCGGAT     | TACCCGTTCA | TATATCATAT | ----- | -----   |
| vndVsec | CAATCGC        | GGCACATATC  | -----CGACC   | -----          | -----TTTGAAT   | CACCTGTCTT | C          | ----- | -----   |
| vndVsim | CAATCGC        | GGCACATATC  | -----CGACC   | -----          | -----TTTGAAT   | CACCTGTCTT | C          | ----- | -----   |
| vndVvir | -----          | -----       | -----ACGAATC | GCCAGCCAGC     | ATAATTTCAA     | TGTTGCCCTT | G          | ----- | -----GT |
| vndVwil | -----          | -----       | -----CTACT   | -----          | -----TGTTTTCAA | TACATATACA | C          | ----- | -----   |
| vndVyak | CAATCGC        | GGGGCATACC  | -----CGACC   | -----          | -----TGC GAAT  | CACCTGTCTT | C          | ----- | -----   |

3361

|         |            |            |             |             |            |              |            |            |
|---------|------------|------------|-------------|-------------|------------|--------------|------------|------------|
| vndVana | -----T     | ACTTTATAAA | AATTATAAAAT | TATATTATTT  | TATTTCTAT  | AATACTCTCA   | CTAACTCTTG | -----      |
| vndVere | -----GCT   | GCTTTTGAAT | AGTATT      | -----AG     | -----GAA   | ATCGCTATAA   | ATATTTTGCG | -----      |
| vndVgri | -----ACA   | GGCTGCCATG | AACTTTGAAT  | -----       | -----      | -----        | -----      | -----      |
| vndVmel | -----GCC   | GCTTTTCGAT | GGCAT       | -----AT     | TATAAGCTAA | CCGGTCCGAA   | GTGCTATAA  | ATCTCTTATG |
| vndVmoj | -----      | -----      | -----       | -----       | -----      | -----        | -----      | -----      |
| vndVper | -----AACCA | AGTATATATC | TAAGTGAAG   | TAAATTTGCTG | ATGATCAGAC | TTTTTAGTTC   | ATAATTGATT | -----      |
| vndVpse | AGTGAAAGCC | GATCTCGGTG | GGTCT       | -----AG     | CGT        | -----GCAGCAA | AAGGGGTTAT | -----      |
| vndVsec | -----GCC   | GCTTTCTATT | GGCAT       | -----AT     | TATGAGCTAT | TCGGTCCGAA   | GTGCTTTTAA | ATCTCTTATG |
| vndVsim | -----GCC   | GCTTTTCGAT | GGCAT       | -----AT     | TATGAGCTAT | TCGGTCCGAA   | GTGCTATAA  | ATCTCTTATG |
| vndVvir | AGACTGGCAA | GCTCTTTGAA | TACCCCTACAC | TTTATATATAT | TCGGTATCAA | GGCTCGATAT   | ACAATTAATC | -----      |
| vndVwil | -----ACA   | CACACACACA | CACACTGAAA  | CACACTATAC  | AGTCTTGGAT | GGAATAATAG   | AAACGCATTG | -----      |
| vndVyak | -----GCT   | GCTTTTGAAT | AATGAT      | -----AG     | AGT        | -----CCA     | ATAATTTATG | -----      |

3431

|         |            |            |             |             |                |                |            |            |
|---------|------------|------------|-------------|-------------|----------------|----------------|------------|------------|
| vndVana | TAGAACTTCT | TTAAAACTCT | TATTTTCATT  | AAAAACTTAA  | GTAGGGCAT      | GGAAGAGTCG     | TATATGCCTT | -----      |
| vndVere | CAGAAGCTAT | GTGCAT     | AA          | -----TACATT | AAATTACC       | -----TG        | -----      | -----      |
| vndVgri | -----      | -----      | -----       | -----       | -----          | -----          | -----      | -----      |
| vndVmel | GAGAAATAAT | GTGTAA     | TA          | TATGTATATG  | AAATTACC       | -----TGAAAGTTT | T          | CTGTA      |
| vndVmoj | -----      | -----      | -----       | -----       | -----          | -----          | -----      | -----      |
| vndVper | CCATTACACC | AATCAGGGAA | TAAATACATA  | ATGAC       | -----CGATAATTT | ATTGATATT      | AGATATCTTA | -----      |
| vndVpse | TTGGGAAAAA | CTGGAA     | TC          | CAGATATCTT  | CCACTCCAAA     | GTACTAGTTT     | GCATAGGTA  | -----GGCGG |
| vndVsec | TGTGATAAT  | GTGTAA     | TA          | TA          | TATGTG         | -----TGAAAGTTT | TCGTCTGTA  | -----TCCTT |
| vndVsim | TGTGATAAT  | GTGTAA     | TG          | TA          | TATGTG         | -----TGAAAGTTT | TCGTCTGTA  | -----TCCTT |
| vndVvir | CGATTGATGT | TTT        | GG          | TGGTTTCGCA  | ACCATACCTT     | GTGTATACTT     | TCGTAGCT   | -----      |
| vndVwil | C          | -----      | -----       | ATTTTCATT   | GTAAAAAAG      | CCTTTACTC      | TTTAAGACCA | TGAATTTCTC |
| vndVyak | TAAAA      | -----      | -----TATATC | AAGTTACC    | -----TGTGAGTTT | T              | -----      | -----      |

3501

|         |            |            |            |            |            |            |            |            |
|---------|------------|------------|------------|------------|------------|------------|------------|------------|
| vndVana | GGGGATTCTT | TCAAATG    | ---        | CGTTCA     | ATTGGGACC  | CTCACTTTGC | GAT-AATTTC | TGTTTATGTT |
| vndVere | AGGAATTTTC | TCAAATG    | ---        | CCATCT     | ---        | CATTTTGT   | AGC-CTTTTC | TGGACACATT |
| vndVgri | ---        | ---        | ---        | ---        | ---        | ---        | ---        | ---        |
| vndVmel | AAGAATTTTC | TCAAATG    | ---        | CAATCA     | AGCGGCGAAC | TCCGCTTTTC | AAC-AACTTC | TGGATACATT |
| vndVmoj | ---        | ---        | ---        | ---        | ---        | ---        | ---        | ---        |
| vndVper | ATGTTGATT  | CTGGG      | ---        | ---        | ---        | CCATCATTA  | AATCAATTTA | TGTTTTTAC  |
| vndVpse | ACAGATGGAC | TTGGATATAT | CAACCGAGTC | GATGATGATA | TGGAAGATGT | TTCTGTCTGA | AAGCTCCACT | ---        |
| vndVsec | AAGAATTTTC | TCAAGTC    | ---        | CTATCT     | AACGGCGAAC | TCCACTTTGG | AGC-AACTGG | TGGATACATT |
| vndVsim | AAGAATTGTC | TCAAATG    | ---        | CGATCT     | AACGGCGAAC | TCCACTTTGG | AGC-AACTGG | TGGATACATT |
| vndVvir | ---        | AAATC      | ---        | ---        | ---        | ---        | TCCT       | TGAATATACT |
| vndVwil | TAAAGGTTTT | GCATATT    | ---        | TTTT       | GTGTAAGAAG | TTCCITT    | ---        | ATTGAA     |
| vndVyak | ---        | AAAT       | ---        | CGACTT     | ---        | CACTTTAT   | AGCAAATTGG | TGGCTACATT |

3571

|         |            |             |            |             |             |            |            |     |
|---------|------------|-------------|------------|-------------|-------------|------------|------------|-----|
| vndVana | TCTTTAGCTT | TTTTTTTCGAT | TTGTGTCCCT | CAAATATTAA  | TGTCAAGTCC  | TGACTGAGAA | ACAGGGTTGT | --- |
| vndVere | GCTTCCGATC | CAAT        | TTATTTTCCA | CAAACATCAA  | AGTGGCTAAG  | AGGAC      | ---        | --- |
| vndVgri | ---        | ---         | ---        | ---         | ---         | ---        | ---        | --- |
| vndVmel | TCTTCCAATT | TTTTTTTTTAT | TCTGTCTCC  | CGAACATCAA  | CGACGAGCAT  | AGGC       | ---        | --- |
| vndVmoj | ---        | ---         | ---        | ---         | ---         | ---        | ---        | --- |
| vndVper | AAGTCATTCC | TTATTTTAT   | CAACTCATT  | AGTTCATTGA  | TGCCTG      | ---        | ---        | --- |
| vndVpse | CCAGCTGGCA | CTCTGT      | TCCGTCTCA  | CAAGTATCCC  | AGAGGTGCCT  | CAACATATTC | CT         | --- |
| vndVsec | CCTTCCAATT | CTTTTTC     | TTCTGTTTTC | CGAACATCAA  | CGACGAGCAT  | AGGC       | ---        | --- |
| vndVsim | CCTTCTAATT | CTTTTTC     | TTCTGTTTTC | CGAACATCAA  | CGACGAGCAT  | AGGCCGGGTA | ACGACCTTTA | --- |
| vndVvir | GAGTTATATT | TTTTTCGTATT | TTGCTTTACC | AAATTTATAAT | TTATTTGCAAA | AGAA       | ---        | --- |
| vndVwil | ACTCTAGAAG | CTCT        | TTCTATGGCT | GGTGTATAAA  | GTCCCTGTAC  | AGAAGTGCCT | ACTCAAGT   | --- |
| vndVyak | CCTTCCGATT | TTCT        | TTCCGTTTCA | TCTA-ATCA   | ---         | ---        | ---        | --- |

3641

|         |             |            |             |            |           |            |            |     |
|---------|-------------|------------|-------------|------------|-----------|------------|------------|-----|
| vndVana | CAAGTGTATA  | GAAATATTAA | AAAAAAAAAGC | TAAAAAGGAA | GTAAAAAAG | GGCGATTAGT | AGAGAATAAA | --- |
| vndVere | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVgri | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVmel | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVmoj | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVper | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVpse | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVsec | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVsim | AGTGCACAAAT | TAAATG     | ---         | ---        | ---       | ---        | ---        | --- |
| vndVvir | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVwil | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |
| vndVyak | ---         | ---        | ---         | ---        | ---       | ---        | ---        | --- |

3711

|         |            |             |            |            |            |            |            |     |
|---------|------------|-------------|------------|------------|------------|------------|------------|-----|
| vndVana | ATAATACAAA | TTGTAAATAAA | TATTTATCTC | CAAAAGAGTA | TGGAACTCAG | CTGAAATCCC | TTTATTTTGC | --- |
| vndVere | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVgri | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVmel | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVmoj | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVper | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVpse | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVsec | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVsim | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVvir | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVwil | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |
| vndVyak | ---        | ---         | ---        | ---        | ---        | ---        | ---        | --- |

3781

|         |            |            |             |     |     |
|---------|------------|------------|-------------|-----|-----|
| vndVana | CTGGAGTCGA | ACCCTTGACT | TAAATATAATA | ATT | --- |
| vndVere | ---        | ---        | ---         | --- | --- |
| vndVgri | ---        | ---        | ---         | --- | --- |
| vndVmel | ---        | ---        | ---         | --- | --- |
| vndVmoj | ---        | ---        | ---         | --- | --- |
| vndVper | ---        | ---        | ---         | --- | --- |
| vndVpse | ---        | ---        | ---         | --- | --- |
| vndVsec | ---        | ---        | ---         | --- | --- |
| vndVsim | ---        | ---        | ---         | --- | --- |
| vndVvir | ---        | ---        | ---         | --- | --- |
| vndVwil | ---        | ---        | ---         | --- | --- |
| vndVyak | ---        | ---        | ---         | --- | --- |