

## SEQUENCE LISTING

<110> Oxford Genetics Limited

<120> Vectors

<130> 489.412.134452/01

<160> 14

<170> PatentIn version 3.5

<210> 1

<211> 2571

<212> DNA

<213> Human immunodeficiency virus type 1

<400> 1

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<212> PRT

<213> Human immunodeficiency virus type 1

<400> 2

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35 40 45

Thr Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp Thr Glu

50 55 60

Val His Asn Val Trp Ala Thr His Ala Cys Val Pro Thr Asp Pro Asn

65 70 75 80

Pro Gln Glu Val Val Leu Val Asn Val Thr Glu Asn Phe Asn Met Trp

85 90 95

Lys Asn Asp Met Val Glu Gln Met His Glu Asp Ile Ile Ser Leu Trp

100 105 110

Asp Gln Ser Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys Val Ser

115 120 125

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Tyr Lys Leu Asp Ile Ile Pro Ile Asp Asn Asp Thr Thr Ser Tyr Lys  
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245 250 255

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Arg Ser Val Asn Phe Thr Asp Asn Ala Lys Thr Ile Ile Val Gln Leu  
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Gly Lys Ile Gly Asn Met Arg Gln Ala His Cys Asn Ile Ser Arg Ala  
325 330 335

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Phe Gly Asn Asn Lys Thr Ile Ile Phe Lys Gln Ser Ser Gly Gly Asp  
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Pro Glu Ile Val Thr His Ser Phe Asn Cys Gly Gly Glu Phe Phe Tyr  
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Cys Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Phe Asn Ser Thr Trp  
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Ser Thr Glu Gly Ser Asn Asn Thr Glu Gly Ser Asp Thr Ile Thr Leu  
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Thr Met Gly Ala Ala Ser Met Thr Leu Thr Val Gln Ala Arg Gln Leu  
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Ala Gln Gln His Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu  
565 570 575

Gln Ala Arg Ile Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln Gln Leu  
580 585 590

Leu Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr Thr Ala Val  
595 600 605

Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser Leu Glu Gln Ile Trp Asn  
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His Thr Thr Trp Met Glu Trp Asp Arg Glu Ile Asn Asn Tyr Thr Ser  
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Leu Ile His Ser Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn  
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Phe Asn Ile Thr Asn Trp Leu Trp Tyr Ile Lys Leu Phe Ile Met Ile  
675 680 685

Val Gly Gly Leu Val Gly Leu Arg Ile Val Phe Ala Val Leu Ser Ile  
690 695 700

Val Asn Arg Val Arg Gln Gly Tyr Ser Pro Leu Ser Phe Gln Thr His  
705 710 715 720

Leu Pro Thr Pro Arg Gly Pro Asp Arg Pro Glu Gly Ile Glu Glu Glu  
725 730 735

Gly Gly Glu Arg Asp Arg Asp Arg Ser Ile Arg Leu Val Asn Gly Ser  
740 745 750

Leu Ala Leu Ile Trp Asp Asp Leu Arg Ser Leu Cys Leu Phe Ser Tyr  
755 760 765

His Arg Leu Arg Asp Leu Leu Leu Ile Val Thr Arg Ile Val Glu Leu  
770 775 780

Leu Gly Arg Arg Gly Trp Glu Ala Leu Lys Tyr Trp Trp Asn Leu Leu  
785 790 795 800

Gln Tyr Trp Ser Gln Glu Leu Lys Asn Ser Ala Val Ser Leu Leu Asn  
805 810 815

Ala Thr Ala Ile Ala Val Ala Glu Gly Thr Asp Arg Val Ile Glu Val  
820 825 830

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Gln Gly Leu Glu Arg Ile Leu Leu  
850 855

<210> 3

<211> 1533

<212> DNA

<213> Vesicular stomatitis virus

<400> 3

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1533

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<211> 511

<212> PRT

<213> Vesicular stomatitis virus

<400> 4

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Val Pro Ser Asn Tyr His Tyr Cys Pro Ser Ser Ser Asp Leu Asn Trp

35 40 45

His Asn Asp Leu Ile Gly Thr Ala Leu Gln Val Lys Met Pro Lys Ser

50 55 60

His Lys Ala Ile Gln Ala Asp Gly Trp Met Cys His Ala Ser Lys Trp

65 70 75 80

Val Thr Thr Cys Asp Phe Arg Trp Tyr Gly Pro Lys Tyr Ile Thr His

85 90 95

Ser Ile Arg Ser Phe Thr Pro Ser Val Glu Gln Cys Lys Glu Ser Ile

100 105 110

Glu Gln Thr Lys Gln Gly Thr Trp Leu Asn Pro Gly Phe Pro Pro Gln

115 120 125

Ser Cys Gly Tyr Ala Thr Val Thr Asp Ala Glu Ala Val Ile Val Gln

130 135 140

Val Thr Pro His His Val Leu Val Asp Glu Tyr Thr Gly Glu Trp Val

145 150 155 160

Asp Ser Gln Phe Ile Asn Gly Lys Cys Ser Asn Tyr Ile Cys Pro Thr  
165 170 175

Val His Asn Ser Thr Thr Trp His Ser Asp Tyr Lys Val Lys Gly Leu  
180 185 190

Cys Asp Ser Asn Leu Ile Ser Met Asp Ile Thr Phe Phe Ser Glu Asp  
195 200 205

Gly Glu Leu Ser Ser Leu Gly Lys Glu Gly Thr Gly Phe Arg Ser Asn  
210 215 220

Tyr Phe Ala Tyr Glu Thr Gly Gly Lys Ala Cys Lys Met Gln Tyr Cys  
225 230 235 240

Lys His Trp Gly Val Arg Leu Pro Ser Gly Val Trp Phe Glu Met Ala  
245 250 255

Asp Lys Asp Leu Phe Ala Ala Ala Arg Phe Pro Glu Cys Pro Glu Gly  
260 265 270

Ser Ser Ile Ser Ala Pro Ser Gln Thr Ser Val Asp Val Ser Leu Ile  
275 280 285

Gln Asp Val Glu Arg Ile Leu Asp Tyr Ser Leu Cys Gln Glu Thr Trp  
290 295 300

Ser Lys Ile Arg Ala Gly Leu Pro Ile Ser Pro Val Asp Leu Ser Tyr  
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Leu Ala Pro Lys Asn Pro Gly Thr Gly Pro Ala Phe Thr Ile Ile Asn  
325 330 335

Gly Thr Leu Lys Tyr Phe Glu Thr Arg Tyr Ile Arg Val Asp Ile Ala  
340 345 350

Ala Pro Ile Leu Ser Arg Met Val Gly Met Ile Ser Gly Thr Thr Thr  
355 360 365

Glu Arg Glu Leu Trp Asp Asp Trp Ala Pro Tyr Glu Asp Val Glu Ile  
370 375 380

Gly Pro Asn Gly Val Leu Arg Thr Ser Ser Gly Tyr Lys Phe Pro Leu  
385 390 395 400

Tyr Met Ile Gly His Gly Met Leu Asp Ser Asp Leu His Leu Ser Ser  
405 410 415

Lys Ala Gln Val Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln  
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Leu Pro Asp Asp Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys  
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Asn Pro Ile Glu Leu Val Glu Gly Trp Phe Ser Ser Trp Lys Ser Ser  
450 455 460

Ile Ala Ser Phe Phe Phe Ile Ile Gly Leu Ile Ile Gly Leu Phe Leu  
465 470 475 480

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<211> 4307

<212> DNA

<213> Human immunodeficiency virus type 1

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<213> Human immunodeficiency virus type 1

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35 40 45

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50 55 60

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Gly Ala Lys Glu  
115

<210> 8  
<211> 19  
<212> DNA  
<213> Escherichia coli

<400> 8  
tccctatcag tgatagaga                                              19

<210> 9  
<211> 624  
<212> DNA  
<213> Escherichia coli

<400> 9  
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ggaattgaag gactcactac tcgcaagctg gcacagaagc tgggcgtcga gcagccaacg    120  
  
ctgtactggc atgtgaagaa taaacgggcg ctctagacg cgcttgccat cgaaatgctg    180  
  
gaccgccatc acaccactt ttccccctg gagggcgaat cctggcaaga ttttctgcgg    240  
  
aacaatgcaa agtcgttccg gtgcgctctg ctgtcccacc gcgatggcgc aaaagtgcac    300  
  
ctgggcactc ggcccaccga gaaacaatac gaaaccctgg aaaaccaact ggctttcctt    360  
  
tgccaacagg gattttcact ggagaatgcc ctgtacgcac tatccgcggt cggccacttt    420  
  
accctgggat gcgtcctcga agatcaggag caccaagtcg ccaaggagga aagagaaact    480  
  
cctaccactg actcaatgcc tccgtcctg agacaagcca tcgagctgtt cgaccaccag    540  
  
ggtgctgaac ctgcatttct gttcgggctt gaactgatta tctgcggcct ggagaaacag    600  
  
ttgaagtgcg agtcgggatc ctag                                              624

<210> 10

<211> 207

<212> PRT

<213> Escherichia coli

<400> 10

Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu  
1 5 10 15

Leu Asn Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln  
20 25 30

Lys Leu Gly Val Glu Gln Pro Thr Leu Tyr Trp His Val Lys Asn Lys  
35 40 45

Arg Ala Leu Leu Asp Ala Leu Ala Ile Glu Met Leu Asp Arg His His  
50 55 60

Thr His Phe Cys Pro Leu Glu Gly Glu Ser Trp Gln Asp Phe Leu Arg  
65 70 75 80

Asn Asn Ala Lys Ser Phe Arg Cys Ala Leu Leu Ser His Arg Asp Gly  
85 90 95

Ala Lys Val His Leu Gly Thr Arg Pro Thr Glu Lys Gln Tyr Glu Thr  
100 105 110

Leu Glu Asn Gln Leu Ala Phe Leu Cys Gln Gln Gly Phe Ser Leu Glu  
115 120 125

Asn Ala Leu Tyr Ala Leu Ser Ala Val Gly His Phe Thr Leu Gly Cys  
130 135 140

Val Leu Glu Asp Gln Glu His Gln Val Ala Lys Glu Glu Arg Glu Thr  
145 150 155 160

Pro Thr Thr Asp Ser Met Pro Pro Leu Leu Arg Gln Ala Ile Glu Leu  
 165 170 175

Phe Asp His Gln Gly Ala Glu Pro Ala Phe Leu Phe Gly Leu Glu Leu  
 180 185 190

Ile Ile Cys Gly Leu Glu Lys Gln Leu Lys Cys Glu Ser Gly Ser  
 195 200 205

<210> 11

<211> 876

<212> DNA

<213> Baculovirus

<400> 11

|                                                                    |     |
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| atgccgaac acgtattcga tatgttacta gaaagacatg gctcgtttga aaattatccc   | 120 |
| attgtaaaca cggcattcat caacagcttg atcgtaaagc ggtttaaata caatcaagtc  | 180 |
| gatgaccacg ttgtgtgcga gtattgtgaa gcagaaataa aaaattggtc cgaagacgag  | 240 |
| tgtattgaat atgcacacgt aacctgtcgc ccgtattgcg cctacgcca taagattgct   | 300 |
| gagcatgaat cgtttggcga caacattacc atcaacgctg tactggtaaa agaaggcaga  | 360 |
| cccaagtgtg tgtacagatg catgtccaat ttacagtcgc gtatggatac gtttgttact  | 420 |
| ttttggcctg ccgcattgcg tgacatgatt ataaacatcg cggaagcggg acttttttac  | 480 |
| acgggtcgcg gagacgaaac tgtatgtttc ttttgcgatt gttgcgtacg tgattggcat  | 540 |
| actaacgaag acgcctggca gcgacacgcc accgaaaacc cgcaatgcta ctttgtgctg  | 600 |
| tcggtgaaag gtaaagaatt ttgtcaaaac gcaattactg ccaactcacgt tgataaacgt | 660 |
| gacgatgacg acgacgacga tgataattta aacgagagcg tcgatgacat tgaggaaaaa  | 720 |
| tacgaatgca aagtctgtct tgaacgcca cgcgacgcag tgcttatgcc ttgtcggcat   | 780 |
| ttttgtgttt gcgttcagtg ttattttggt ttatatcaa agtgtccgac ctgtcgtcaa   | 840 |
| gacgtcaccg atttcataaa aatattttgt gtgtag                            | 876 |

<210> 12  
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<212> DNA  
<213> Epstein Barr virus

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caagagcccc ggcggggtcag acgccgcgta ttagtccagc aggaagagga agtagtaagt 180  
  
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agccccacc gcggcggtca ggaacctgc cggtcagac ggcggtgtct cgtacaacag 360  
  
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gatcgttcgg aagtccccg cccagcacgc ccggggccgc caggattgg gccgaaggt 660  
  
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agcgaggtgc cgggaccggc gcggccgggg ccgccgggga tcgggcctga aggtccgctg 1260

gggcagctct tgcgcagaca ccgctcgccc agcccaaccc gcggtggaca agaaccccga 1320  
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 gaagaggaag atgaggatta g 1521

<210> 13  
 <211> 702  
 <212> DNA  
 <213> Homo sapiens

<400> 13  
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 accgaatcgg agatggaaac tccgtcagca atcaacggaa atccatcatg gcacctggca 180  
 gatagcccgg cggatgaacgg agcaaccgga cattcaagct ccctggacgc cagagaagtg 240  
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 gcagagtcga ggaagggcca agaacgcttt aatcgggtgt tcctgactgg aatgacggtg 660  
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<210> 14  
 <211> 16  
 <212> PRT  
 <213> Vesicular stomatitis virus

<400> 14

Met Leu Ser Tyr Leu Ile Phe Ala Leu Ala Val Ser Pro Ile Leu Gly  
1 5 10 15