

SEQUENCE LISTING

<110> Shenzhen Eureka Biotechnology Co., LTD.

<120> Retroviral Vector Producer Cell and Packaging Cell and Preparation Method Thereof

<130> MP2000607

<160> 59

<170> PatentIn version 3.2

<210> 1

<211> 1893

<212> DNA

<213> Artificial sequence

<220>

<223> 18BF003_pma-MCS

<400> 1

```
actgcgggccg ccctgcaggt caactagtga cgtcttaatt aattgccggc tggaacgcgt      60
ttcgaacatc gattgaattc tggccaagtg gatccgctag ctctagagtc gacggtacca      120
agcttgccctc gagccatgga gatctgcatg ccctaggtcc ggaaccgggtt ggcgcgccat      180
ctggcagcga tcgccgcgga acccctatctt gtttatttttt ctaaatacat tcaaatatgt      240
atccgctcat gagacaataa ccctgataaa tgcttcaata atattgaaaa aggaagagta      300
tgagtattca acatttccgt gtcgccctta ttccctttttt tgcggcattt tgccttcctg      360
tttttgctca cccagaaacg ctggtgaaag taaaagatgc tgaagatcag ttgggtgcac      420
gagtgggtta catcgaactg gatctcaaca gcggtgaagat ccttgagagt tttcgccccg      480
aagaacgttt tccaatgatg agcactttta aagttctgct atgtggcgcg gtattatccc      540
gtattgacgc cgggcaagag caactcggtc gccgcataca ctattctcag aatgacttgg      600
ttgagtactc accagtcaca gaaaagcatc ttacggatgg catgacagta agagaattat      660
gcagtgctgc cataaccatg agtgataaca ctgcggccaa cttacttctg acaacgatcg      720
gaggaccgaa ggagctaacc gcttttttgc acaacatggg ggatcatgta actcgccttg      780
atcgttggga accggagctg aatgaagcca taccaaacga cgagcgtgac accacgatgc      840
```

ctgtagcaat ggcaacaacg ttgcgcaaac tattaactgg cgaactactt actctagctt	900
cccgggaaca attaatagac tggatggagg cggataaagt tgcaggacca cttctgcgct	960
cggcccttcc ggctgggtgg tttattgctg ataaatctgg agccggtgag cgtgggtctc	1020
gcggtatcat tgcagcactg gggccagatg gtaagccctc ccgtatcgta gttatctaca	1080
cgacggggag tcaggcaact atggatgaac gaaatagaca gatcgctgag ataggtgcct	1140
cactgattaa gcattggtaa cgtacggaag ttagagaaaa ggcataagta gaaaagatca	1200
aaggatcttc ttgagatcct ttttttctgc gcgtaatctg ctgcttgcaa aaaaaaaaaac	1260
caccgctacc agcggtggtt tgtttgccgg atcaagagct accaactctt tttccgaagg	1320
taactggctt cagcagagcg cagataccaa atactgttct tctagtgtag ccgtagttag	1380
gccaccactt caagaactct gtagcaccgc ctacatacct cgctctgcta atcctgttac	1440
cagtggctgc tgccagtggc gataagtcgt gtcttaccgg gttggactca agacgatagt	1500
taccggataa ggcgagcgg tcgggctgaa cgggggggttc gtgcacacag cccagcttgg	1560
agcgaacgac ctacaccgaa ctgagatacc tacagcgtga gctatgagaa agcgccacgc	1620
ttcccgaagg gagaaaggcg gacaggtatc cggtaagcgg cagggtcgga acaggagagc	1680
gcacgaggga gcttccaggg ggaaacgcct ggtatcttta tagtcctgtc gggtttcgcc	1740
acctctgact tgagcgtcga tttttgtgat gctcgtcagg ggggcggagc ctatggaaaa	1800
acgccagcaa cgcggccttt ttacggttcc tggccttttg ctggcctttt gctcatctca	1860
tgaaaattat gcaaattgag ccagtcaggc agt	1893

<210> 2

<211> 2900

<212> DNA

<213> Artificial sequence

<220>

<223> NotI-IR/DR-HS4I-CMV-BGI-MCS-hGHpA-HS4I-IR/DR-AsiSI

<400> 2

gcggccgcat ctatacagtt gaagtcggaa gtttacatac acttaagttg gagtcattaa	60
---	----

aactcgtttt tcaactactc cacaaatttc ttgttaacaa acaatagttt tggcaagtca	120
---	-----

gtaggacat ctactttgtg catgacacaa gtcatttttc caacaattgt ttacagacag	180
attattttcac ttataattca ctgtatcaca attccagtgg gtcagaagtt tacatacact	240
aagttgactg tgcctttaaa cagcttggaa aattccagaa aatgatgtca tggcttttagc	300
ctgcagggag ggacagcccc ccccaaaagc cccagggat gtaattacgt ccctcccccg	360
ctagggggca gcagcgagcc gcccggggct ccgctccggt ccggcgctcc ccccgcatcc	420
ccgagccggc agcgtgcggg gacagcccgg gcacggggaa ggtggcacgg gatcgctttc	480
ctctgaacgc ttctcgctgc tctttgagcc tgcagacacc tgggggggata cggggaaaag	540
gacctgcagg tcaactagt acgtcttaat taattgccgg ctggacgtac gcgtctagtt	600
attaatagta atcaattac gggtcattag ttcataagccc atatattggag ttccgcgtta	660
cataacttac ggtaaattggc ccgcctggct gaccgcccac cgacccccgc ccattgacgt	720
caataatgac gtatgttccc atagtaacgc caatagggac tttccattga cgtcaatggg	780
tggagtattht acggtaaact gccacttgg cagtacatca agtgtatcat atgccaagta	840
cgccccctat tgacgtcaat gacggtaaht ggcccgctg gcattatgcc cagtacatga	900
ccttatggga ctttcctact tggcagtaca tctacgtatt agtcatcgct attaccatgg	960
tgatgcggtht ttggcagtac atcaatgggc gtggatagcg gtttgactca cggggatttht	1020
caagtctcca ccccatthac gtcaatggga gtttgthttg gcacaaaaat caacgggact	1080
ttcaaaaatg tcgtaacaac tccgccccat tgacgcaaat gggcggtagg cgtgtacggt	1140
gggaggthta tataagcaga gctcgtthtag tgaaccgtca gatcgcttg agacgccatc	1200
cacgctgtht tgacctccat agaagacacc gggaccgatc cagcctccgc ggattcgaat	1260
cccggccggg aacggtgcat tggaacgcgg attccccgtg ccaagagtga cgtaagtacc	1320
gcctatagag tctataggcc cacaaaaaat gctthcttht tthaatatac ththththt	1380
atctththt taatacttht cctaathctt thctthcagg gcaataatga tacaathtat	1440
catgcctctt tgcaccatht taaagaataa cagtataat thctgggtht aggcathatc	1500
aataththct catataaata thcttgcata taaathgtaa ctgatgtaag aggtthcata	1560
thgctaathg cagctacaat ccagctacca thctgcttht ththththt thggataagg	1620

ctggattatt ctgagtccaa gctaggccct tttgctaadc atgttcatac ctcttatctt	1680
cctcccacag ctctctgggca acgtgctggg ctgtgtgctg gcccatcact ttggcaaaga	1740
attgggattc gaacatcgat tgaattctgg ccaggatccg ctagctctag agtcgacggg	1800
accagtacta agcttgccct gagccatgga gatctacggg tggcatccct gtgacccctc	1860
cccagtgccct ctcttgggcc tggaagttgc cactccagtg cccaccagcc ttgtcctaata	1920
aaaattaagt tgcatacatt tgtctgacta ggtgtccttc tataatatta tgggggtggag	1980
gggggtggta tggagcaagg ggcaagttgg gaagacaacc tgtagggcct gcgggggtcta	2040
ttgggaacca agctggagtg cagtggcaca atcttggtc actgcaatct ccgcctcctg	2100
ggttcaagcg attctcctgc ctacagcctc cgagttgttg ggattccagg caagcatgac	2160
caggctcagc taatctttgt ttttttggtg gagacggggg ttcaccatat tggccaggct	2220
ggtctccaac tcctaactc aggtgatcta cccaccttg cctcccaaat tgctgggatt	2280
acaggcgtga accactgctc cttccctgt cttgcatgc ctaggcagc tgtccggaac	2340
cggtgtttaa acaggccttt tccccgtatc ccccaggtg tctgcaggct caaagagcag	2400
cgagaagcgt tcagaggaaa gcgatcccgt gccaccttc ccgtgcccg gctgtccccg	2460
cacgtgccg gctcggggat gcggggggag cgccggaccg gagcggagcc ccgggcggct	2520
cgctgctgcc ccctagcggg ggaggagcgt aattacatcc ctgggggctt tggggggggg	2580
ctgtccctca ggccttggcg cgccctaaag ccatgacatc attttctgga attttccaag	2640
ctgttttaaag gcacagtcaa cttagtgtat gtaaacttct gacctactgg aattgtgata	2700
cagtgaatta taagtgaat aatctgtctg taaacaattg ttggaaaaat gacttgtgtc	2760
atgcacaaaag tagatgtcct aactgacttg ccaaaactat tgtttgttaa caagaaattt	2820
gtggagtagt tgaaaaacga gttttaatga ctccaactta agtgtatgta aacttccgac	2880
ttcaactgta tagcgatcgc	2900

<210> 3
 <211> 1386
 <212> DNA
 <213> Artificial sequence

<220>

<223> NotI-PB3'ITR-HS4I-MCS-HS4I-PB5'ITR-AsiSI

<400> 3

gcggccgcaa cacgcagcta gattaaccct agaaagataa tcatattgtg acgtacgtta	60
aagataatca tgcgtaaaat tgacgcatgt gttttatcgg tctgtatatc gaggtttatt	120
tattaatttg aatagatatt aagttttatt atatttacac ttacatacta ataataaatt	180
caacaaacaa tttatttatg tttatttatt tattaaaaaa aaacaaaaac tcaaaatttc	240
ttctataaag taacaaaact tttatcctgc agggaggagac agccccccc caaagcccc	300
agggatgtaa ttacgtccct ccccgctag ggggcagcag cgagccgcc ggggctccgc	360
tccggtccgg cgctcccc gcatccccga gccggcagcg tgcggggaca gccggggcac	420
ggggaaggtg gcacgggatc gctttcctct gaacgcttct cgctgctctt tgagcctgca	480
gacacctggg gggatacggg gaaaaggacc tgcaggtcaa ctagtgacgt cttaattaat	540
tgccggctgg acgtacgcgt tttggcaaaa tcgattgaat tctggccaag tggatccgct	600
agctctagag tcgacgttac cagtactaag cttgcctcga ggatatccca tggagatcta	660
tggggacatc atgaagcccc ttgagcatct gacttctggc taataaagga aatttatttt	720
cattgcaata gtgtgttgga attttttgtg tctctcactc ggaaggacat atgggagcat	780
gccctaggca gctgtccgga accggtgttt aaacaggcct tttccccgta tccccccagg	840
tgtctgcagg ctcaaagagc agcgagaagc gttcagagga aagcgatccc gtgccacctt	900
ccccgtgccc gggctgtccc cgcacgctgc cggctcgggg atgcgggggg agcgccggac	960
cggagcggag ccccgggcgg ctcgctgctg cccctagcg ggggaggagac gtaattacat	1020
ccctgggggc tttggggggg ggctgtccct caggccttgg cgcgccatat ctataacaag	1080
aaaatatata tataataagt tatcacgtaa gtagaacacg aaataacaat ataattatcg	1140
tatgagttaa atcttaaaag tcacgtaaaa gataatcatg cgtcattttg actcacgcgg	1200
ttgttatagt tcaaaatcag tgacacttac cgcattgaca agcacgcctc acgggagctc	1260
caagcggcga ctgagatgtc ctaaatagcac agcgacggat tcgctgctatt tagaaagaga	1320
gagcaatatt tcaagaatgc atgcgtcaat ttacgcaga ctatctttct agggttaagc	1380

gatcgc

1386

<210> 4

<211> 915

<212> DNA

<213> Artificial sequence

<220>

<223> MluI-TRE3GCuO-BGI-ClaI-EcoRI

<400> 4

acgcgttact ccctatcagt gatagagaac gtatgaagag ttctactccct atcagtgata	60
gagaacgtat gcagacttta ctccctatca gtgatagaga acgtataagg agtttactcc	120
ctatcagtga tagagaacgt atgaccagtt tactccctat cagtgataga gaacgtatct	180
acagtttact ccctatcagt gatagagaac gtatatccag ttctactccct atcagtgata	240
gagaacgtat taggcgtgta cgggtgggcgc ctataaaagc agagctcggt tagtgaaccg	300
tcagatcgcc tggagcaatt ccacatacaa acagaccaga ttgtctgttt gttacacttt	360
tgtcttatac caactttccg taccacttcc taccctcgta aattcgaatc ccggccggga	420
acggtgcatt ggaacgcgga ttccccgtgc caagagtgc gtaagtaccg cctatagagt	480
ctataggccc acaaaaaatg ctttcttctt ttaatatact tttttgttta tcttatttct	540
aatactttcc ctaatctctt tctttcaggg caataatgat acaatgtatc atgcctcttt	600
gcaccattct aaagaataac agtgataatt tctgggttaa ggcaatagca atatttctgc	660
atataaatat ttctgcatat aaattgtaac tgatgtaaga ggtttcatat tgctaatagc	720
agctacaatc cagctacat tctgctttta ttttatgggt gggataaggc tggattattc	780
tgagtccaag ctaggccctt ttgctaataca tgttcatacc tcttatcttc ctcccacagc	840
tcctgggcaa cgtgctggtc tgtgtgctgg cccatcactt tggcaaagaa ttgggattcg	900
aaatcgattg aattc	915

<210> 5

<211> 887

<212> DNA

<213> Artificial sequence

<220>

<223> MluI-TRE3G-BGI-ClaI-EcoRI

<400> 5

```
acgcgttact ccctatcagt gatagagaac gtatgaagag ttctactcct atcagtgata    60
gagaacgtat gcagacttta ctccctatca gtgatagaga acgtataagg agtttactcc    120
ctatcagtga tagagaacgt atgaccagtt tactccctat cagtgataga gaacgtatct    180
acagtttact ccctatcagt gatagagaac gtatatccag ttctactcct atcagtgata    240
gagaacgtat taggcgtgta cgggtgggcgc ctataaaagc agagctcggt tagtgaaccg    300
tcagatcgcc tggagcaatt ccacaacact tttgtcttat accaactttc cgtaccactt    360
cctaccctcg taaattcgaa tcccggccgg gaacgggtgca ttggaacgcg gattccccgt    420
gccaagagtg acgtaagtac cgcctataga gtctataggc ccacaaaaaa tgctttcttc    480
ttttaatata cttttttggt tatcttattt ctaatacttt ccctaattct tttctttcag    540
ggcaataatg atacaatgta tcatgcctct ttgcaccatt ctaaagaata acagtgataa    600
tttctgggtt aaggcaatag caatatttct gcatataaat atttctgcat ataaattgta    660
actgatgtaa gaggtttcat attgctaata gcagctacaa tccagctacc attctgcttt    720
tattttatgg ttgggataag gctggattat tctgagtcca agctaggccc ttttgctaata    780
catgttcata cctcttatct tcctcccaca gctcctgggc aacgtgctgg tctgtgtgct    840
ggcccatcac tttggcaaag aattgggatt cgaaatcgat tgaattc                    887
```

<210> 6

<211> 897

<212> DNA

<213> Artificial sequence

<220>

<223> MluI-TREadvCuO-BGI-ClaI-EcoRI

<400> 6

```
acgcgtgacg aggatcgttc gagcgagttt actccctatc agtgatagag aacgtatgtc    60
gagtttactc cctatcagtg atagagaacg atgtcgagtt tactccctat cagtgataga    120
gaacgtatgt cgagtttact ccctatcagt gatagagaac gtatgtcgag ttctactcct    180
```

atcagtgata gagaacgtat gtcgagttta tccctatcag tgatagagaa cgtatgtcga	240
gtttactccc tatcagtgat agagaacgta tgtcgaggta ggcgtgtacg gtgggaggcc	300
tatataagca accggtgttt agtgaaccgt cagatcgctt ggagacgcca tcataataca	360
aacagaccag attgtctgtt tgttttcgaa tcccggccgg gaacggtgca ttggaacgcg	420
gattccccgt gccaaagatg acgtaagtac cgcctataga gtctataggc ccacaaaaaa	480
tgctttcttc ttttaataata cttttttgtt tatcttattt ctaatacttt ccctaattct	540
tttctttcag ggcaataatg atacaatgta tcatgcctct ttgcaccatt ctaaagaata	600
acagtgataa tttctgggtt aaggcaatag caatatttct gcatataaat atttctgcat	660
ataaattgta actgatgtaa gaggtttcat attgctaata gcagctacaa tccagctacc	720
attctgcttt tattttatgg ttgggataag gctggattat tctgagtcca agctaggccc	780
ttttgctaata catgttcata cctcttatct tcctcccaca gctcctgggc aacgtgctgg	840
tctgtgtgct ggcccatcac tttggcaaag aattgggatt cgaaatcgat tgaattc	897

<210> 7

<211> 852

<212> DNA

<213> Artificial sequence

<220>

<223> MluI-TREadv-BGI-ClaI-EcoRI

<400> 7

acgcgtgacg aggatcgttc gagcgagttt actccctatc agtgatagag aacgtatgtc	60
gagtttactc cctatcagtg atagagaacg atgtcgagtt tactccctat cagtgataga	120
gaacgtatgt cgagtttact ccctatcagt gatagagaac gtatgtcgag tttactccct	180
atcagtgata gagaacgtat gtcgagttta tccctatcag tgatagagaa cgtatgtcga	240
gtttactccc tatcagtgat agagaacgta tgtcgaggta ggcgtgtacg gtgggaggcc	300
tatataagca gagctcgttt agtgaaccgt cagatcgctt tcgaatcccg gccgggaacg	360
gtgcattgga acgcggattc cccgtgccaa gagtgacgta agtaccgcct atagagtcta	420
taggcccaca aaaaatgctt tcttctttta atatactttt ttgtttatct tattttcta	480

actttcccta atctctttct ttcagggcaa taatgataca atgtatcatg cctctttgca	540
ccatttctaaa gaataacagt gataatttct ggggttaaggc aatagcaata tttctgcata	600
taaatatttc tgcatataaa ttgtaactga tgtaagaggt ttcattattgc taatagcagc	660
tacaatccag ctaccattct gcttttattt tatggttggg ataaggctgg attattctga	720
gtccaagcta ggcccttttg ctaatcatgt tcatacctct tatcttcctc ccacagctcc	780
tgggcaacgt gctgggtctgt gtgctggccc atcactttgg caaagaattg ggattcgaaa	840
tcgattgaat tc	852

<210> 8
 <211> 887
 <212> DNA
 <213> Artificial sequence

<220>
 <223> SpeI-SV40p-optiBSD-SV40pA-PvuII-AgeI

<400> 8	
actagtgtgt gtcagttagg gtgtggaaag tccccaggct cccagcagg cagaagtatg	60
caaagcatgc atctcaatta gtcagcaacc aggtgtggaa agtccccagg ctccccagca	120
ggcagaagta tgcaaagcat gcatctcaat tagtcagcaa ccatagtccc gcccttaact	180
ccgcccattc cgcccctaac tccgcccagt tccgcccatt ctccgcccc tggctgacta	240
atttttttta tttatgcaga ggccgaggcc gcctctgcct ctgagctatt ccagaagtag	300
tgaggaggct tttttggagg ccataggctt ttgcaaaaag ctatggctaa accattgtcc	360
caagaggaaa gcaccctcat tgaaagagca actgctacaa tcaatagtat tcctatcagc	420
gaagattatt ctgtcgcttc tgctgctctc tctagtgatg gtcgtatttt tacaggtgtc	480
aatgtatatc attttacagg aggaccatgt gctgaacttg tgggtgcttg aactgcggcg	540
gcggcggcag caggcaacct gacttgata gtcgctatcg gaaatgagaa caggggcatt	600
ttaagtcctt gcggaagatg ccgacaggtg cttcttgacc tccatcctgg tatcaaagcc	660
atagtgaaag acagtgatgg acagccgacg gcagttggga ttcgtgaatt gctgccctct	720
ggttatgtgt gggagggcta aaacttgttt attgcagctt ataatgggta caaataaagc	780

aatagcatca caaatctcac aaataaagca tttttttcac tgcattctag ttgtggtttg 840
tccaaactca tcaatgtatc ttacctaggc agctgtccgg aaccggt 887

<210> 9
<211> 633
<212> DNA
<213> Artificial sequence

<220>
<223> CymR coding sequence

<400> 9
atcgatgcca ccatgtctcc aaagaggaga acccaggcag agagggcaat ggagacacag 60
ggcaagctga tcgccgccgc cctgggctgt ctgagggaga agggatacgc aggcttccgc 120
atcgccgatg tgccaggagc cgccggcgtg tcccggggcg cacagtctca ccacttcct 180
accaagctgg agctgctgct ggccacattt gagtggctgt atgagcagat caccgagagg 240
agccgcgcca ggctggcaaa gctgaagcca gaggacgatg tgatccagca gatgctggac 300
gatgccgccg agttctttct ggacgatgac tttagcatct ccctggatct gatcgtggcc 360
gccgatagag accccgccct gagggagggc atccagagga cagtggagag aaacaggttc 420
gtggtggagg atatgtggct gggcgtgctg gtgtctcgcg gcctgagccg ggatgacgca 480
gaggacatcc tgtggctgat ctttaacagc gtgcggggcc tggccgtgag atccctgtgg 540
cagaaggaca aggagcgggt cgagcgcgtg cggaattcca ccctggagat cgccagagag 600
aggtacgcca agtttaagag atgataactc gag 633

<210> 10
<211> 1496
<212> DNA
<213> Artificial sequence

<220>
<223> SpeI-SV40p-optiHygroR-SV40pA-AgeI

<400> 10
actagtgtgt gtcagttagg gtgtggaaag tccccaggct cccagcagg cagaagtatg 60
caaagcatgc atctcaatta gtcagcaacc aggtgtggaa agtccccagg ctccccagca 120

ggcagaagta tgcaaagcat gcatctcaat tagtcagcaa ccatagtccc gccctaact	180
ccgcccattcc cgcccctaac tccgcccagt tccgcccatt ctccgccccca tggctgacta	240
atTTTTTTtta tttatgcaga ggccgaggcc gcctctgcct ctgagctatt ccagaagtag	300
tgaggagggt tttttggagg ccataggctt ttgcaaaaag ctatgaaaaa gcctgaactc	360
acagcgactt ctgttgagaa gtttctgata gaaaagttcg acagcgtttag cgacctgatg	420
cagctctcgg agggcgagga atctagggtt ttcagcttcg atgtaggagg gcgtggatat	480
gtcctgcggg taaatagctg cgccgatggt ttctacaaag atcgttatgt ttatcggcac	540
tttgcatacg ctgcgctccc gattcccgaa gtgcttgaca ttggggagtt cagcgagagc	600
ctgacctatt gcatctcccg ccgcgcacag ggcgtaactt tgcaagacct ccctgaaacc	660
gaactgcccc ctgttctaca acctgtcgcg gaggctatgg acgctattgc tgctgccgat	720
ctttcccaga cttccgggtt cggcccattt ggaccgcaag gaatcgggtca atacactaca	780
tggcgtgatt tcatttgcgc gattgctgat ccccatgtgt atcattggca aactgtgatg	840
gatgataccg tcagcgcgag tgtcgcgcag gctctcgatg agctgatgct ttgggccgag	900
gattgccccg aagttcgcca cttgggtccac gcggatttcg gcagcaacaa tgtcctgaca	960
gataatggcc gcataacagc ggtcattgat tggagcgaag ctatgttcgg ggattcccaa	1020
tacgaggtcg ctaacatctt tttctggcgt ctttggttgg cttgtatgga gcagcaaacg	1080
cgctactttg aaagacgaca tccagagctt gcaggatcgc ctccggctccg ggcgtatatg	1140
ctccgcattg gtcttgacca actctatcag agcttggtgg acggcaattt cgatgatgct	1200
gcttgggcgc agggtcgatg tgatgcaatc gtccgaagtg gagccgggac tgtcgggcga	1260
acacaaatcg ccgcagaaag cgcagccgtc tggaccgatg gctgtgtaga agttctcgcc	1320
gatagtggaa acagacgccc ctctactcgt ccgagggcaa aggaatagaa cttgtttatt	1380
gcagcttata atggttacia ataaagcaat agcatcacia atttcacaaa taaagcattt	1440
ttttcactgc attctagttg tggtttgtcc aaactcatca atgtatctta accggt	1496

<210> 11
 <211> 1979
 <212> DNA

<213> Artificial sequence

<220>

<223> MluI-CAGGS-BGI(C&R)-MCS-SV40pA-AgeI

<400> 11

acgcgtgaca ttgattattg acatgttatt aatagtaatc aattacgggg tcattagttc	60
atagcccata tatggagttc cgcgttacat aacttacggt aaatggcccg cctggctgac	120
cgcccaacga ccccgccca ttgacgtcaa taatgacgta tgttcccata gtaacgccaa	180
tagggacttt ccattgacgt caatgggtgg agtattttacg gtaaactgcc cacttggcag	240
tacatcaagt gtatcatatg ccaagtacgc cccctattga cgtcaatgac ggtaaattggc	300
ccgcctggca ttatgcccag tacatgacct tatgggactt tcctacttgg cagtacatct	360
acgtattagt catcgctatt accatggtcg aggtgagccc cacgttctgc ttcactctcc	420
ccatctcccc cccctccca cccccaattt tgtattttatt ttttttttaa ttattttgtg	480
cagcgatggg ggccccgggg gggggggggc gcgcgccagg cggggcgggg cggggcgagg	540
ggcggggcgg ggcgaggcgg agaggtgcgg cggcagccaa tcagagcggc gcgctccgaa	600
agtttccttt tatggcgagg cggcggcggc ggcgcccta taaaagcga agcgcgcggc	660
gggcgttcga aggagtcgct gcgacgctgc cttcgccccg tgccccgctc cgccgccgcc	720
tcgcgccgcc cgccccggct ctgactgacc gcgttactcc cacaggtgag cgggcgggac	780
ggcccttctc ctccgggctg taattagcgc ttggtttaat gacggcttgt ttcttttctg	840
tggctgcgtg aaagccttga ggggctccgg gagggccctt tgtgcggggg gagcggtcgc	900
gggggtgcgt gcgtgtgtgt gtgcgtgggg agcgccgcgt gcggctccgc gctgcccggc	960
ggctgtgagc gctgcgggcg cggcgcgggg ctttgtgcgc tccgcagtgt gcgcgagggg	1020
agcgcgggcg ggggcggtgc cccgcggtgc ggggggggct gcgaggggaa caaaggctgc	1080
gtgcggggtg tgtgcgtggg ggggtgagca gggggtgtgg gcgcgtcggc cgggctgcaa	1140
ccccccctgc acccccctcc ccgagttgct gagcacggcc cggcttcggg tgcggggctc	1200
cgtacggggc gtggcgcggg gctcgccgtg ccgggcgggg ggtggcggca ggtgggggtg	1260
ccgggcgggg cggggccgcc tcgggccggg gagggctcgg gggagggggc cggcgggccc	1320

cggagcgccg gcggctgtcg aggcgcggcg agccgcagcc attgcctttt atggtaatcg	1380
tgcgagaggg cgcagggact tcctttgtcc caaatctgtg cggagccgaa atctgggagg	1440
cgccgccgca cccctctag cgggcgcggg gcgaagcggc gcggcgccgg caggaaggaa	1500
atgggcgggg agggccttcg tgcgtcgccg cgccgccgtc cccttctccc tctccagcct	1560
cggggctgtc cgcgggggga cggctgcctt cgggggggac ggggcagggc ggggttcggc	1620
ttctggcgtg tgaccggcgg ctcttgagcc tctgctaacc atgttcatgc cttcttcttt	1680
ttcctacagc ttcgaacctg ggcaacgtgc tggttattgt gctgtctcat cattttggca	1740
aaatcgattg aattctggcc aagtggatcc gctagctcta gagtcgacgg taccagtact	1800
aagcttgcct cgaggatatc ccatggagat ctatggggac atcatgaagc cccttgagca	1860
tctgacttct ggctaataaa ggaaatttat ttctattgca atagtgtgtt ggaatttttt	1920
gtgtctctca ctcggaagga catatgggag catgccctag gcagctgtcc ggaaccggt	1979

<210> 12
 <211> 768
 <212> DNA
 <213> Artificial sequence

<220>
 <223> rtTA 3G coding sequence

<400> 12	
atcgatgcca ccatgagccg cctggataag tccaaagtga tcaactctgc cctggagctg	60
ctgaatggag tgggaatcga gggactgacc acaaggaagc tggcacagaa gctgggagtg	120
gagcagccta ccctgtactg gcacgtgaag aacaagcgcg ccctgctgga cgcactgcca	180
atcgagatgc tggatcggca ccacacacac agctgcccac tggagggaga gtcctggcag	240
gattttctgc ggaacaatgc caagtcttat agatgtgcac tgctgagcca caggacgga	300
gcaaaggcgc acctgggaac caggcccaca gagaagcagt acgagaccct ggagaaccag	360
ctggccttcc tgtgccagca gggcttttcc ctggagaatg ccctgtatgc cctgtctgcc	420
gtgggccact ttaccctggg atgcgtgctg gaggagcagg agcaccaggt ggccaaggag	480
gagagagaga caccaaccac agatagcatg cccctctgc tgaagcaggc catcgagctg	540

ttcgacaggc agggagcaga gccagccttc ctgtttggcc tggagctgat catctgcggc	600
ctggagaagc agctgaagtg tgagtccgga ggacctacag acgcactgga cgatttcgac	660
ctggatatgc tgccagccga tgccctggac gattttgacc tggatatgct gcccgccgac	720
gccctggatg actttgacct ggacatgctg cctggctgat aactcgag	768

<210> 13
 <211> 765
 <212> DNA
 <213> Artificial sequence

<220>
 <223> rtTA adv coding sequence

<400> 13	
atcgatgccca ccatgtccag actggacaag agcaaagtca taaacggcgc tctggaatta	60
ctcaatggag tcggtatcga aggcctgacg acaaggaaac tcgctcaaaa gctgggagtt	120
gagcagccta ccctgtactg gcacgtgaag aacaagcggg ccctgctcga tgccctgccca	180
atcgagatgc tggacaggca tcataccac ttctgcccc tgggaaggcga gtcattggcaa	240
gactttctgc ggaacaacgc caagtcattc cgctgtgctc tcctctcaca tcgcgacggg	300
gctaaagtgc atctcggcac ccgcccaca gagaaacagt acgaaaccct ggaaaatcag	360
ctcgcgttcc tgtgtcagca aggcttctcc ctggagaacg cactgtacgc tctgtccgcc	420
gtggggccact ttacactggg ctgcgtattg gaggaacagg agcatcaagt agcaaaagag	480
gaaagagaga cacctaccac cgattctatg cccccacttc tgagacaagc aattgagctg	540
ttcgaccggc agggagccga acctgccttc cttttcggcc tggaaactaat catatgtggc	600
ctggagaaac agctaaagtg cgaaagcggc gggccggccg acgcccttga cgattttgac	660
ttagacatgc tcccagccga tgcccttgac gactttgacc ttgatatgct gcctgctgac	720
gctcttgacg attttgacct tgacatgctc cccgggtaac tcgag	765

<210> 14
 <211> 1320
 <212> DNA
 <213> Artificial sequence

<220>

<223> XhoI-IRES-ECFP-BglIII

<400> 14

```
ctcgaggccc ctctccctcc ccccccccta acgttactgg ccgaagccgc ttggaataag    60
gccggtgtgc gtttgtctat atgttatatt ccacatatt gccgtctttt ggcaatgtga    120
gggcccggaa acctggccct gtcttcttga cgagcattcc taggggtctt tcccctctcg    180
ccaaaggaat gcaaggtctg ttgaatgtcg tgaaggaagc agttcctctg gaagcttctt    240
gaagacaaac aacgtctgta gcgacccttt gcaggcagcg gaacccccca cctggcgaca    300
ggcgcctctg cggccaaaag ccacgtgtat aagatacacc tgcaaaggcg gcacaacccc    360
agtgccacgt tgtgagttgg atagttgtgg aaagagtcaa atggctctcc tcaagcgtat    420
tcaacaaggg gctgaaggat gcccagaagg taccctattg tatgggatct gatctggggc    480
ctcgggtgcac atgctttaca tgtgtttagt cgagggttaa aaaacgtcta ggcccccgga    540
accacgggga cgtgggttttc ctttgaaaaa cacgatgata atatggccac aaccatggtg    600
agcaagggcg aggagctgtt caccggggtg gtgcccattc tggctcgagct ggacggcgac    660
gtaaacggcc acaagttcag cgtgtccggc gagggcgagg gcgatgccac ctacggcaag    720
ctgaccctga agttcatctg caccaccggc aagctgcccg tgccctggcc caccctcgtg    780
accaccctga cctggggcgt gcagtgcctc agccgctacc ccgaccacat gaagcagcac    840
gacttcttca agtccgcat gcccgaggc tacgtccagg agcgaccat cttcttcaag    900
gacgacggca actacaagac ccgcgccgag gtgaagttcg agggcgacac cctggtgaac    960
cgcatcgagc tgaaggcat cgacttcaag gaggacggca acatcctggg gcacaagctg   1020
gagtacaact acatcagcca caacgtctat atcaccgccg acaagcagaa gaacggcatc   1080
aaggccaact tcaagatccg ccacaacatc gaggacggca gcgtgcagct cgccgaccac   1140
taccagcaga acacccccat cggcgacggc cccgtgctgc tgcccgacaa ccactacctg   1200
agcaccctgt ccgccctgag caaagacccc aacgagaagc gcgatcacat ggtcctgctg   1260
gagttcgtga ccgccgccgg gatcactctc ggcatggacg agctgtacaa gtaaagatct   1320
```

<210> 15

<211> 1044
<212> DNA
<213> Artificial sequence

<220>
<223> SB transposase coding sequence

<400> 15
ggatccgcca ccatgggcaa gtccaaggag atctctcagg acctgagaaa gaggatcgtg 60
gatctgcaca agagcggcag ctccctggga gcaatctcca agcgcctggc agtgcctcgg 120
tctagcgtgc agaccatcgt gcgcaagtac aagcaccacg gcaccacaca gccttcttat 180
cggagcggcc ggagaagggt gctgagccca cgcgacgagc ggacactggt gcgcaagggt 240
cagatcaacc cccggaccac agccaaggat ctggtgaaga tgctggagga gaccggcaca 300
aagggtgtcca tctctaccgt gaagagagtg ctgtacaggc acaacctgaa gggccactcc 360
gccagaaaga agcctctgct gcagaatagg cacaagaagg caaggctgag gttcgcaacc 420
gcacacggcg acaaggatcg cacatttttg cggaacgtgc tgtggtctga cgagaccaag 480
atcgagctgt tcggccacaa tgatcacaga tacgtgtgga ggaagaaggg cgaggcctgc 540
aagcccaaga ataccatccc tacagtgaag cacggaggag gctccatcat gctgtgggga 600
tgttttgtag caggaggaac aggcgccctg cacaagatcg acggcatcat ggatgccgtg 660
cagtatgtgg acatcctgaa gcagcacctg aagacctctg tgagaaagct gaagctgggc 720
aggaagtggg tgttccagca cgacaacgat ccaaagcaca caagcaagggt ggtggccaag 780
tggctgaagg acaataagggt gaagggtctg gagtggccca gccagtcccc tgatctgaac 840
ccaatcgaga atctgtgggc cgagctgaag aagagagtga gggcccggag acccaccaac 900
ctgacacagc tgcaccagct gtgccaggag gagtgggcca agatccaccc aaattactgt 960
ggcaagctgg tggagggcta tcccaagagg ctgaccagg tgaagcagtt taagggaac 1020
gccacaaagt attgataact cgag 1044

<210> 16
<211> 1806
<212> DNA
<213> Artificial sequence

<220>

<223> PB transposase coding sequence

<400> 16

ggatccgcca ccatgggcag ctccctggac gatgagcaca tcctgtccgc cctgctgcag	60
tctgacgatg agctgggtggg cgaggacagc gattccgagg tgagcgacca cgtgtccgag	120
gacgatgtgc agagcgacac agaggaggcc ttcatcgatg aggtgcacga ggtgcagcca	180
acctctagcg gcagcgagat cctggatgag cagaacgtga tcgagcagcc tggctcctct	240
ctggcctcca ataagatcct gaccctgcca cagaggacaa tccgcggcaa gaacaagcac	300
tgctgggtcta ccagcaagcc tacacggaga tcccgggtgt ctgccctgaa ccacgtgcgg	360
tcccagagag gccaaccag gatgtgccgc aatatctacg acccctgct gtgctttaag	420
ctgttcttta cagatgagat catcagcgag atcgtgaagt ggaccaacgc cgagatctcc	480
ctgaagaggc gcgagagcat gacctccgcc acattcaggg acaccaatga ggatgagatc	540
tacgccttct ttggcatcct ggtcatgaca gccgtgcgga aggacaacca catgagcacc	600
gacgatctgt ttgatagatc cctgtctatg gtgtacgtga gcgtgatgag cagggaccgc	660
ttcgattttc tgatccggtg cctgagaatg gacgataagt ccatccggcc tacactgaga	720
gagaatgacg tgttcacccc agtgaggaag atctgggatc tgtttatcca ccagtgtatc	780
cagaactaca caccaggagc acacctgacc atcgacgagc agctgctggg cttccggggc	840
agatgccctt ttcgcgtgta catcccaa atagccctcta agtatggcat caagatcctg	900
atgatgtgcg atagcggcac caagtacatg atcaacggca tgccatatct gggcaggggc	960
accagacaa atggcgtgcc cctgggcgag tactatgtga aggagctgtc caagcctgtg	1020
cacggctctt gccgcaacat cacatgtgac aattggttca cctctatccc cctggccaag	1080
aacctgctgc aggagcctta taagctgacc atcgtgggca cagtgaggag caacaagcgc	1140
gagatccccg aggtgctgaa gaatagcagg tcccgccctg tgggcacatc catgttctgc	1200
tttgatggcc cactgaccct ggtgtcttac aagcccaagc ctgccaagat ggtgtatctg	1260
ctgagctcct gtgacgagga tgcctctatc aacgagagca ccggcaagcc ccagatggtc	1320
atgtactata atcagacaaa gggcggcgtg gacaccctgg atcagatgtg cagcgtgatg	1380

acctgttccc ggaagacaaa tagatggcct atggccctgc tgtacggcat gatcaacatc	1440
gcctgcatca attctttcat catctatagc cacaacgtgt ctagcaaggg cgagaaggtg	1500
cagagcagga agaagttcat gcgcaatctg tacatgggcc tgacatcctc ttttatgcgg	1560
aagagactgg aggccccac cctgaagagg tatctgcgcg acaacatctc caatatcctg	1620
cctaaggagg tgccaggcac ctccgacgat tctacagagg agccagtgc caagaagcgg	1680
acctactgca catattgtcc ctccaagatc cggagaaagg cctctgccag ctgcaagaag	1740
tgtaagaaag tgatctgtag agagcacaac atcgacatgt gccagtcttg tttttgataa	1800
ctcgag	1806

<210> 17
 <211> 1320
 <212> DNA
 <213> Artificial sequence

<220>
 <223> XhoI-IRES-EGFP-BglII

<400> 17	
ctcgaggccc ctctccctcc ccccccccta acgttactgg ccgaagccgc ttggaataag	60
gccggtgtgc gtttgtctat atgttatatt ccaccatatt gccgtctttt ggcaatgtga	120
gggcccggaa acctggccct gtcttcttga cgagcattcc taggggtctt tcccctctcg	180
ccaaaggaat gcaaggctctg ttgaatgtcg tgaaggaagc agttcctctg gaagcttctt	240
gaagacaaac aacgtctgta gcgacccttt gcaggcagcg gaacccccca cctggcgaca	300
ggtgcctctg cggccaaaag ccacgtgtat aagatacacc tgcaaaggcg gcacaacccc	360
agtgccacgt tgtgagttgg atagttgtgg aaagagtcaa atggctctcc tcaagcgtat	420
tcaacaaggg gctgaaggat gccagaagg taccctattg tatgggatct gatctggggc	480
ctcggtgcac atgctttaca tgtgtttagt cgaggttaaa aaaacgtcta ggcccccgga	540
accacgggga cgtgggtttt ctttgaaaaa cacgatgata atatggccac aaccatgggtg	600
agcaagggcg aggagctgtt caccgggggtg gtgcccattc tggtcgagct ggacggcgac	660
gtaaacggcc acaagttcag cgtgtccggc gagggcgagg gcgatgccac ctacggcaag	720

ctgaccctga agttcatctg caccaccggc aagctgcccg tgccctggcc caccctcgtg	780
accaccctga cctacggcgt gcagtgttc agccgctacc ccgaccacat gaagcagcac	840
gacttcttca agtccgcat gcccgaggc tacgtccagg agcgcacat cttcttcaag	900
gacgacggca actacaagac ccgcgccgag gtgaagttcg agggcgacac cctggtgaac	960
cgcatcgagc tgaagggcat cgacttcaag gaggacggca acatcctggg gcacaagctg	1020
gagtacaact acaacagcca caacgtctat atcatggccg acaagcagaa gaacggcatc	1080
aaggtgaact tcaagatccg ccacaacatc gaggacggca gcgtgcagct cgccgaccac	1140
taccagcaga acacccccat cggcgacggc cccgtgctgc tgcccgacaa ccactacctg	1200
agcaccacgt ccgccctgag caaagacccc aacgagaagc gcgatcacat ggtcctgctg	1260
gagttcgtga ccgccgccgg gatcactctc ggcatggacg agctgtacaa gtaaagatct	1320

<210> 18
 <211> 3610
 <212> DNA
 <213> Artificial sequence

<220>
 <223> SpeI-RSV-LTR-phi-Gag(334)-RRE-cppt-MCS-WPRE-ppt-LTR-SV40pA-SV40p-optiPuorR-SV40pA-AgeI

<400> 18	
actagttaag tagtcttatg caatactctt gtagtcttgc aacatggtaa cgatgagtta	60
gcaacatgcc ttacaaggag agaaaaagca ccgtgcatgc cgattggtgg aagtaagggtg	120
gtacgatcgt gccttattag gaaggcaaca gacgggtctg acatggattg gacgaaccac	180
tgaattgccg cattgcagag atattgtatt taagtgccta gctcgataca taaacgggtc	240
tctctggtta gaccagatct gagcctggga gctctctggc taactaggga acccactgct	300
taagcctcaa taaagcttgc cttgagtgc tcaagtagtg tgtgcccgtc tgttgtgtga	360
ctctggtaac tagagatccc tcagaccctt ttagtcagtg tggaaaatct ctagcagtgg	420
cgcccgaaca gggacttgaa agcgaaaggg aaaccagagg agctctctcg acgcaggact	480
cggcttgctg aagcgcgcac ggcaagaggc gaggggcggc gactggtgag tacgcaaaaa	540
attttgacta gcggaggcta gaaggagaga gatgggtgcg agagcgtcag tattaagcgg	600

gggagaatta gatcgcgatg ggaaaaaatt cggttaaggc caggggggaaa gaaaaaatat	660
aaattaaaaac atatatgatg ggcaagcagg gagctagaac gattcgcagt taatcctggc	720
ctgttagaaa catcagaagg ctgtagacaa atactgggac agctacaacc atcccttcag	780
acaggatcag aagaacttag atcattatat aatacagtag caaccctcta ttgtgtgcat	840
caaaggatag agataaaaga caccaaggaa gcttttagaca agatagagga agagcaaaac	900
aaaagaatcg atattaggag tagcacccac caaggcaaag agaagagtgg tgcagagaga	960
aaaaagagca gtgggaatag gagctttgtt ccttgggttc ttgggagcag caggaagcac	1020
tatgggcgca gcgtaatga cgctgacggc acaggccaga caattattgt ctggtatagt	1080
gcagcagcag aacaatttgc tgagggctat tgaggcgcaa cagcatctgt tgcaactcac	1140
agtctggggc atcaagcagc tccaggcaag aatcctggct gtggaaagat acctaaagga	1200
tcaacagctc ctggggattt ggggttgctc tggaaaactc atttgcacca ctgctgtgcc	1260
ttggaatgct agttggagaa ttcttcgaac ctgcaggatg gtaccaaggc ctttttaaaa	1320
gaaaaggggg gattgggggg tacagtgcag gggaaagaat agtagacata atagcaacag	1380
acatacaaac taaagaatta caaaaacaaa ttacaaaaat tcaaaatttt gtttaaactt	1440
aattaattta aatacgcggt gcgctagctc tagaccggg ctcgaggtcg accgggatcc	1500
gatatcatat gaatcaacct ctggattaca aaatttgtga aagattgact ggtattctta	1560
actatgttgc tccttttacg ctatgtggat acgctgcttt aatgcctttg tatcatgcta	1620
ttgcttccc g tatggctttc attttctcct ccttgataa atcctggttg ctgtctcttt	1680
atgaggagt gtggcccgtt gtcaggcaac gtggcgtggt gtgactgtg tttgctgacg	1740
caacccccac tggttggggc attgccacca cctgtcagct cctttccggg actttcgctt	1800
tccccctccc tattgccacg gcggaactca tcgccgcctg ccttgcccgc tgctggacag	1860
gggctcggct gttgggcact gacaattccg tgggtgtgtc ggggaagctg acgtcctttc	1920
catggctgct cgcctgtgtt gccacctgga ttctgcgcgg gacgtccttc tgctacgtcc	1980
cttcggccct caatccagcg gaccttcctt cccgcggcct gctgccggct ctgcggcctc	2040
ttccgctct tcgccttcgc cctcagacga gtcgatctc cctttgggcc gcctccccgc	2100

ctggcggccg	cttaagacca	atgacttaca	aggcagctgt	agatccttagc	cacttttttaa	2160
aagaaaaggg	gggactggaa	gggctaattc	actcccaacg	aagacaagat	ctgcttttttg	2220
cttgtactgg	gtctctctgg	ttagaccaga	tctgagcctg	ggagctctct	ggctaactag	2280
ggaaccact	gcttaagcct	caataaagct	tgctttgagt	gcttcaagta	gtgtgtgccc	2340
gtctgttggt	tgactctggg	aactagagat	ccctcagacc	cttttagtca	gtgtggaaaa	2400
tctctagcag	gcgatcgcaa	cttgtttatt	gcagcttata	atggttacaa	ataaagcaat	2460
agcatcacia	atttcacaaa	taaagcattt	ttttcactgc	attctagttg	tggtttgtcc	2520
aaactcatca	atgtatctta	cctagtgtgt	gtcagttagg	gtgtggaaag	tccccaggct	2580
ccccagcagg	cagaagtatg	caaagcatgc	atctcaatta	gtcagcaacc	aggtgtggaa	2640
agtccccagg	ctccccagca	ggcagaagta	tgcaaagcat	gcatctcaat	tagtcagcaa	2700
ccatagtccc	gcccctaact	ccgccccatc	cgcccctaac	tccgcccagt	tccgcccatt	2760
ctccgcccc	tggctgacta	atTTTTTTT	tttatgcaga	ggccgaggcc	gcctctgcct	2820
ctgagctatt	ccagaagtag	tgaggaggct	TTTTTggagg	ccataggctt	ttgcaaaaag	2880
ctatgactga	gtacaagccc	acggtgcgcc	tcgccacccg	cgacgatggt	cctagagccg	2940
tccgcaccct	cgccgccgcg	ttcgccgact	acccgccac	gcgccacacc	gtagaccctg	3000
accgccacat	cgagagggtc	acagagctgc	aagagctggt	tctcacgcgc	gtcgggctcg	3060
acatcggcaa	ggtgtgggtc	gcggacgacg	gcgcagcggg	ggcgggtctg	accacgccgg	3120
agagcgtcga	agcggggggc	gtgttcgccg	agatcggccc	gcgcatggcc	gagttgagcg	3180
gttccccggc	ggccgcgcag	caacagatgg	agggacttct	ggcaccgcac	cgaccaaggg	3240
agcccgctg	gttcctggct	accgtcgggt	tctcgcccga	ccaccagggc	aagggtctgg	3300
gctccgccgt	cgttctcccc	ggagtggagg	cagccgagag	agccgggggt	ccgccttttc	3360
tggaaacctc	cgcgccccgc	aacctcccct	tctacgagcg	gctcggcttc	accgtcaccg	3420
ccgatgtcga	ggtgcccga	ggaccgcgta	cctgggtgcat	gacccgcaag	cccgggtgcct	3480
gaaacttggt	tattgcagct	tataatgggt	acaaataaag	caatagcatc	acaaatttca	3540
caaataaagc	atTTTTTTT	ctgcattcta	gttgtgtgtt	gtccaaactc	atcaatgtat	3600

cttaaccggt 3610

<210> 19
<211> 301
<212> DNA
<213> Artificial sequence

<220>
<223> TRE3G response element sequence

<400> 19
tccctatcag tgatagagaa cgtatgaaga gtttactccc tatcagtgat agagaacgta 60
tgcagacttt actccctatc agtgatagag aacgtataag gagtttactc cctatcagtg 120
atagagaacg tatgaccagt ttactcccta tcagtgatag agaacgtatc tacagtttac 180
tccctatcag tgatagagaa cgtatatcca gtttactccc tatcagtgat agagaacgta 240
ttaggcgtgt acgggtgggcg cctataaaaag cagagctcgt ttagtgaacc gtcagatcgc 300
c 301

<210> 20
<211> 344
<212> DNA
<213> Artificial sequence

<220>
<223> TRE3G-CuO response element sequence

<400> 20
tccctatcag tgatagagaa cgtatgaaga gtttactccc tatcagtgat agagaacgta 60
tgcagacttt actccctatc agtgatagag aacgtataag gagtttactc cctatcagtg 120
atagagaacg tatgaccagt ttactcccta tcagtgatag agaacgtatc tacagtttac 180
tccctatcag tgatagagaa cgtatatcca gtttactccc tatcagtgat agagaacgta 240
ttaggcgtgt acgggtgggcg cctataaaaag cagagctcgt ttagtgaacc gtcagatcgc 300
ctggagcaat tccacatata aacagaccag attgtctgtt tggt 344

<210> 21
<211> 307

<212> DNA
<213> Artificial sequence

<220>
<223> TREadv response element sequence

<400> 21
tccctatcag tgatagagaa cgtatgtcga gtttactccc tatcagtgat agagaacgat 60
gtcgagtta ctccctatca gtgatagaga acgtatgtcg agtttactcc ctatcagtga 120
tagagaacgt atgtcgagtt tactccctat cagtgataga gaacgtatgt cgagtttatc 180
cctatcagtg atagagaacg tatgtcgagt ttactcccta tcagtgatag agaacgtatg 240
tcgaggtagg cgtgtacggt gggaggccta tataagcaga gtcgtttag tgaaccgtca 300
gatcgcc 307

<210> 22
<211> 352
<212> DNA
<213> Artificial sequence

<220>
<223> TREadv-CuO response element sequence

<400> 22
tccctatcag tgatagagaa cgtatgtcga gtttactccc tatcagtgat agagaacgat 60
gtcgagtta ctccctatca gtgatagaga acgtatgtcg agtttactcc ctatcagtga 120
tagagaacgt atgtcgagtt tactccctat cagtgataga gaacgtatgt cgagtttatc 180
cctatcagtg atagagaacg tatgtcgagt ttactcccta tcagtgatag agaacgtatg 240
tcgaggtagg cgtgtacggt gggaggccta tataagcaac cgggtgtag tgaaccgtca 300
gatcgctgg agacgccatc ataatacaaa cagaccagat tgtctgtttg tt 352

<210> 23
<211> 231
<212> DNA
<213> Artificial sequence

<220>
<223> SB IR/DR sequence

<400> 23
 ttagtgatg taaacttctg acccactgga attgtgatac agtgaattat aagtgaata 60
 atctgtctgt aaacaattgt tggaaaaatg acttgtgtca tgcacaaagt agatgtccta 120
 actgacttgc caaaactatt gtttgttaac aagaaatttg tggagtagtt gaaaaacgag 180
 ttttaatgac tccaacttaa gtgtatgtaa acttccgact tcaactgtat a 231

<210> 24
 <211> 238
 <212> DNA
 <213> Artificial sequence

<220>
 <223> PB 3'ITR

<400> 24
 ccctagaaag ataatcatat tgtgacgtac gttaaagata atcatgcgta aaattgacgc 60
 atgtgtttta tcggtctgta tatcgagggt tatttattaa tttgaataga tattaagttt 120
 tatttatatt acacttacat actaataata aattcaacaa acaatttatt tatgtttatt 180
 tatttattaa aaaaaaacia aaactcaaaa tttcttctat aaagtaacaa aactttta 238

<210> 25
 <211> 313
 <212> DNA
 <213> Artificial sequence

<220>
 <223> PB 5'ITR

<400> 25
 catatctata acaagaaaat atatatataa taagttatca cgtaagtaga acacgaaata 60
 acaatataat tatcgtatga gttaaattctt aaaagtcacg taaaagataa tcatgcgtca 120
 ttttgactca cgcggttggt atagttcaaa atcagtgaca cttaccgcat tgacaagcac 180
 gcctcacggg agctccaagc ggcgactgag atgtcctaaa tgcacagcga cggattcgcg 240
 ctatttagaa agagagagca atatttcaag aatgcatgcg tcaattttac gcagactatc 300
 tttctagggt taa 313

<210> 26
 <211> 488
 <212> DNA
 <213> Artificial sequence

<220>
 <223> BGI intron sequence

<400> 26
 tccccggccgg gaacggtgca ttggaacgcg gattccccgt gccaaagagtg acgtaagtac 60
 cgcctataga gtctataggc ccacaaaaaa tgctttcttc ttttaataata cttttttgtt 120
 tatcttattt ctaatacttt ccctaattctc tttctttcag ggcaataatg atacaatgta 180
 tcatgcctct ttgcaccatt ctaaagaata acagtataa tttctgggtt aaggcaatag 240
 caatatttct gcatataaat atttctgcat ataaattgta actgatgtaa gaggtttcat 300
 attgctaata gcagctacaa tccagctacc attctgcttt tattttatgg ttgggataag 360
 gctggattat tctgagtcca agctaggccc ttttgctaata catgttcata cctcttatct 420
 tcctcccaca gctcctgggc aacgtgctgg tctgtgtgct ggcccatcac tttggcaaag 480
 aattggga 488

<210> 27
 <211> 612
 <212> DNA
 <213> Artificial sequence

<220>
 <223> CymR encoding nucleic acid sequence

<400> 27
 atgtctccaa agaggagaac ccaggcagag agggcaatgg agacacaggg caagctgattc 60
 gccgccgcc tgggcgtgct gagggagaag ggatacgag gcttccgcat cgccgatgtg 120
 ccaggagccg ccggcgtgtc ccggggcgca cagtctcacc acttccctac caagctggag 180
 ctgctgctgg ccacatttga gtggctgtat gagcagatca ccgagaggag ccgcgccagg 240
 ctggcaaagc tgaagccaga ggacgatgtg atccagcaga tgctggacga tgccgccgag 300
 ttcttttctgg acgatgactt tagcatctcc ctggatctga tcgtggccgc cgatagagac 360
 cccgccctga gggagggcat ccagaggaca gtggagagaa acaggttcgt ggtggaggat 420

atgtggctgg gcgtgctggt gtctcgcggc ctgagccggg atgacgcaga ggacatcctg	480
tggctgatct ttaacagcgt gcggggcctg gccgtgagat ccctgtggca gaaggacaag	540
gagcggttcg agcgcgtgcg gaattccacc ctggagatcg ccagagagag gtacgccaaag	600
tttaagagat ga	612

<210> 28
 <211> 747
 <212> DNA
 <213> Artificial sequence

<220>
 <223> rtTA3G encoding nucleic acid sequence

<400> 28	
atgagccgcc tggataagtc caaagtgatc aactctgccc tggagctgct gaatggagtg	60
ggaatcgagg gactgaccac aaggaagctg gcacagaagc tgggagtgga gcagcctacc	120
ctgtactggc acgtgaagaa caagcgcgcc ctgctggacg cactgccaat cgagatgctg	180
gatcggcacc acacacacag ctgcccactg gagggagagt cctggcagga ttttctgcgg	240
aacaatgcca agtcttatag atgtgcactg ctgagccaca gggacggagc aaaggtgcac	300
ctgggaacca ggcccacaga gaagcagtac gagaccctgg agaaccagct ggccttcctg	360
tgccagcagg gcttttccct ggagaatgcc ctgtatgccc tgtctgccgt gggccacttt	420
accctgggat gcgtgctgga ggagcaggag caccaggtgg ccaaggagga gagagagaca	480
ccaaccacag atagcatgcc ccctctgctg aagcaggcca tcgagctgtt cgacaggcag	540
ggagcagagc cagccttcct gtttggcctg gagctgatca tctgcggcct ggagaagcag	600
ctgaagtgtg agtccggagg acctacagac gcactggacg atttcgacct ggatatgctg	660
ccagccgatg ccctggacga ttttgacctg gatatgctgc ccgccgacgc cctggatgac	720
tttgacctgg acatgctgcc tggctga	747

<210> 29
 <211> 747
 <212> DNA
 <213> Artificial sequence

<220>

<223> rtTAadv encoding nucleic acid sequence

<400> 29

```
atgtccagac tggacaagag caaagtcata aacggcgctc tggaattact caatggagtc      60
ggatatcgaag gcctgacgac aaggaaactc gctcaaaagc tgggagttga gcagcctacc    120
ctgtactggc acgtgaagaa caagcgggcc ctgctcgatg ccctgccaat cgagatgctg      180
gacaggcatc ataccactt ctgccccctg gaaggcgagt catggcaaga ctttctgcgg      240
aacaacgcca agtcattccg ctgtgctctc ctctcacatc gcgacggggc taaagtgcatt    300
ctcggcaccc gcccaacaga gaaacagtac gaaaccctgg aaaatcagct cgcgttcctg     360
tgtcagcaag gcttctccct ggagaacgca ctgtacgctc tgtccgccgt gggccacttt     420
acactgggct gcgtattgga ggaacaggag catcaagtag caaaagagga aagagagaca     480
cctaccaccg attctatgcc cccacttctg agacaagcaa ttgagctggt cgaccggcag      540
ggagccgaac ctgccttcct tttcggcctg gaactaatca tatgtggcct ggagaaacag     600
ctaaagtgcg aaagcggcgg gccggccgac gcccttgacg attttgactt agacatgctc     660
ccagccgatg cccttgacga ctttgacctt gatatgctgc ctgctgacgc tcttgacgat      720
tttgaccttg acatgctccc cgggtaa                                           747
```

<210> 30

<211> 1023

<212> DNA

<213> Artificial sequence

<220>

<223> SB transposase encoding nucleic acid sequence

<400> 30

```
atgggcaagt ccaaggagat ctctcaggac ctgagaaaga ggatcgtgga tctgcacaag      60
agcggcagct ccctgggagc aatctccaag cgcctggcag tgcctcggtc tagcgtgcag    120
accatcgtgc gcaagtacaa gcaccacggc accacacagc cttcttatcg gagcggccgg     180
agaagggtgc tgagcccacg cgacgagcgg aactgggtgc gcaagggtgca gatcaacccc    240
cggaccacag ccaaggatct ggtgaagatg ctggaggaga ccggcacaaa ggtgtccatc     300
```

tctaccgtga agagagtgct gtacaggcac aacctgaagg gccactccgc cagaaagaag	360
cctctgctgc agaataggca caagaaggca aggctgaggt tcgcaaccgc acacggcgac	420
aaggatcgca cattttggcg gaacgtgctg tggcttgacg agaccaagat cgagctgttc	480
ggccacaatg atcacagata cgtgtggagg aagaaggcg aggcctgcaa gccaagaat	540
accatcccta cagtgaagca cggaggaggc tccatcatgc tgtggggatg ttttcagca	600
ggaggaacag gcgccctgca caagatcgac ggcatcatgg atgccgtgca gtatgtggac	660
atcctgaagc agcacctgaa gacctctgtg agaaagctga agctgggcag gaagtgggtg	720
ttccagcacg acaacgatcc aaagcacaca agcaaggtgg tggccaagtg gctgaaggac	780
aataaggtga aggtgctgga gtggcccagc cagtcccctg atctgaacc aatcgagaat	840
ctgtggggcg agctgaagaa gagagtgagg gcccgagac ccaccaacct gacacagctg	900
caccagctgt gccaggagga gtgggccaag atccaccaa attactgtgg caagctggtg	960
gagggctatc ccaagaggct gaccaggtg aagcagttta agggcaacgc caaaaagtat	1020
tga	1023

<210> 31
 <211> 1785
 <212> DNA
 <213> Artificial sequence

<220>
 <223> PB transposase encoding nucleic acid sequence

<400> 31	
atgggcagct ccctggacga tgagcacatc ctgtccgcc tgctgcagtc tgacgatgag	60
ctggtgggcg aggacagcga ttccgaggtg agcgaccacg tgtccgagga cgatgtgcag	120
agcgacacag aggaggcctt catcgatgag gtgcacgagg tgcagccaac ctctagcggc	180
agcgagatcc tggatgagca gaacgtgatc gagcagcctg gtcctctctt ggcctccaat	240
aagatcctga ccctgccaca gaggacaatc cgcggcaaga acaagcactg ctggtctacc	300
agcaagccta cacggagatc ccgggtgtct gccctgaacc acgtgcggtc ccagagaggc	360
ccaaccagga tgtgccgcaa tatctacgac cccctgctgt gctttaagct gttctttaca	420

gatgagatca tcagcgagat cgtgaagtgg accaacgccg agatctccct gaagaggcgc	480
gagagcatga cctccgccac attcaggac accaatgagg atgagatcta cgccttcttt	540
ggcatcctgg tcatgacagc cgtgcggaag gacaaccaca tgagcaccga cgatctgttt	600
gatagatccc tgtctatggt gtacgtgagc gtgatgagca gggaccgctt cgattttctg	660
atccggtgcc tgagaatgga cgataagtcc atccggccta cactgagaga gaatgacgtg	720
ttcaccaccag tgaggaagat ctgggatctg tttatccacc agtgtatcca gaactacaca	780
ccaggagcac acctgacat cgacgagcag ctgctgggct tccggggcag atgccctttt	840
cgcgtgtaca tcccaaataa gccctctaag tatggcatca agatcctgat gatgtgcgat	900
agcggcacca agtacatgat caacggcatg ccatatctgg gcaggggcac ccagacaaat	960
ggcgtgcccc tgggcgagta ctatgtgaag gagctgtcca agcctgtgca cggctcttgc	1020
cgcaacatca catgtgacaa ttggttcacc tctatcccc tggccaagaa cctgctgcag	1080
gagccttata agctgacat cgtgggcaca gtgaggagca acaagcgca gatccccgag	1140
gtgctgaaga atagcaggtc ccgccctgtg ggcacatcca tgttctgctt tgatggccca	1200
ctgaccctgg tgtcttaciaa gcccaagcct gccaatgagc tgtatctgct gagctcctgt	1260
gacgaggatg cctctatcaa cgagagcacc ggcaagcccc agatggatcat gtactataat	1320
cagacaaagg gcggcgtgga caccctggat cagatgtgca gcgtgatgac ctgttcccgg	1380
aagacaaata gatggcctat ggccctgctg tacggcatga tcaacatcgc ctgcatcaat	1440
tctttcatca tctatagcca caacgtgtct agcaaggcg agaaggtgca gagcaggaag	1500
aagttcatgc gcaatctgta catgggcctg acatcctctt ttatgcggaa gagactggag	1560
gccccaccc tgaagaggta tctgcgagc aacatctcca atatcctgcc taaggaggtg	1620
ccaggcacct ccgacgattc tacagaggag ccagtaccca agaagcggac ctactgcaca	1680
tattgtccct ccaagatccg gagaaaggcc tctgccagct gcaagaagtg taagaaagtg	1740
atctgtagag agcacaacat cgacatgtgc cagtcttgtt tttga	1785

<210> 32

<211> 38

<212> DNA
 <213> Artificial sequence

 <220>
 <223> C-VSVG-F

 <400> 32
 gctcatcgat gccacccatga agtgcctttt gtacttag 38

 <210> 33
 <211> 35
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> C-VSVG-R

 <400> 33
 caggctcgag ctattacttt ccaagtcggt tcatc 35

 <210> 34
 <211> 34
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> C-rev-F

 <400> 34
 cgatatcgat gccacccatgg caggaagaag cgga 34

 <210> 35
 <211> 34
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> C-rev-R

 <400> 35
 catgctcgag ttactattct ttagctcctg actc 34

 <210> 36
 <211> 29
 <212> DNA
 <213> Artificial sequence

<220>
 <223> C-RRE-F

 <400> 36
 catggatcta gaaggagctt tggtccttg 29

 <210> 37
 <211> 33
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> C-RRE-R

 <400> 37
 caggctcgag aagcttgtgt aattgttaat ttc 33

 <210> 38
 <211> 33
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> C-GagPol-F

 <400> 38
 gcacgaattc gccaccatgg gtgagagagc gtc 33

 <210> 39
 <211> 36
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> C-GagPol-R

 <400> 39
 gcagtctaga ctattaatcc tcacctgtc tacttg 36

 <210> 40
 <211> 29
 <212> DNA
 <213> Artificial sequence

 <220>

<223> hPGK-F

 <400> 40
 catacgcgtg cttgatatcg aattccacg 29

 <210> 41
 <211> 24
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> hPGK-R

 <400> 41
 cagatgaact tcagggtcag cttg 24

 <210> 42
 <211> 31
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Luc-F

 <400> 42
 tcaggatcca tctgcgatct aagtaagctt g 31

 <210> 43
 <211> 29
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Luc-R

 <400> 43
 tcaactcgag ctagaattac acggcgatc 29

 <210> 44
 <211> 29
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> F8V1-F

<400> 44
gtcagatcga tgccaccatg caaatagag 29

<210> 45
<211> 60
<212> DNA
<213> Artificial sequence

<220>
<223> F8V1HA-R

<400> 45
cctgctcgag tcatgcataa tcaggcacgt cataggggta gctgccgtag aggtcctgtg 60

<210> 46
<211> 37
<212> DNA
<213> Artificial sequence

<220>
<223> FP-BDDF8-F

<400> 46
ccattgaacc aagaagcttc tctcaaaacc caccagt 37

<210> 47
<211> 37
<212> DNA
<213> Artificial sequence

<220>
<223> FP-BDDF8-R

<400> 47
actggtgggt tttgagagaa gcttcttggt tcaatgg 37

<210> 48
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Gag-taqman-F01

<400> 48
ggagctagaa cgattcgag tta 23

<210> 49
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> Gag-taqman-R01

<400> 49
tgatcctgtc tgaagggatg gt

22

<210> 50
<211> 17
<212> DNA
<213> Artificial sequence

<220>
<223> Gag-Probe-01

<400> 50
tcctggcctg ttagaaa

17

<210> 51
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Hygro-taqman-F01

<400> 51
tgctccgcat tggctctga

19

<210> 52
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Hygro-taqman-R01

<400> 52
cttcggacga ttgcatcaca

20

<210> 53
<211> 15
<212> DNA
<213> Artificial sequence

<220>
<223> Hygro-Probe-01

<400> 53
atgctgcttg ggcgc 15

<210> 54
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> REV-taqman-F01

<400> 54
aggaatagaa gaagaagggtg gagaga 26

<210> 55
<211> 18
<212> DNA
<213> Artificial sequence

<220>
<223> REV-taqman-R01

<400> 55
gcacaggctc cgcagatc 18

<210> 56
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> REV-Probe-01

<400> 56
attcgattag tgaacggatc 20

<210> 57
<211> 20

<212> DNA
<213> Artificial sequence

<220>
<223> VSVG-taqman-F01

<400> 57
attgcccgtc aagctcagat 20

<210> 58
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> VSVG-taqman-R01

<400> 58
ccgtctgctt gaatagcctt gt 22

<210> 59
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> VSVG-Probe-01

<400> 59
tacaagtcaa aatgcccaag ag 22