SEQUENCE LISTING

<110> CEVEC Pharmaceuticals GmbH

<120> Novel permanent human cell line

<130> CEV-014 PCT

<150> DE 10 2009 003 439.0
<151> 2009-02-05

<160> 12

<170> PatentIn version 3.3

<210> 1
<211> 4344
<212> DNA
<213> Artificial

<220>
<223> 1-4344 Ad5

<400> 1
catcatcaat aatatacctt attttggatt gaagccaata tgataatgag ggggtggagt 60

ttgtgacgtg gcgcggggcg tgggaacggg gcgggtgacg tagtagtgtg gcggaagtgt 120

gatgttgcaa gtgtggcgga acacatgtaa gcgacggatg tggcaaaagt gacgtttttg 180

gtgtgcgccg gtgtacacag gaagtgacaa ttttcgcgcg gttttaggcg gatgttgtag 240

taaatttggg cgtaaccgag taagatttgg ccattttcgc gggaaaactg aataagagga 300

agtgaaatct gaataatttt gtgttactca tagcgcgtaa tatttgtcta gggccgcggg 360

gactttgacc gtttacgtgg agactcgccc aggtgttttt ctcaggtgtt ttccgcgttc 420

cgggtcaaag ttggcgtttt attattatag tcagctgacg tgtagtgtat ttatacccgg 480

tgagttcctc aagaggccac tcttgagtgc cagcgagtag agttttctcc tccgagccgc 540

tccgacaccg ggactgaaaa tgagacatat tatctgccac ggaggtgtta ttaccgaaga 600

aatggccgcc agtcttttgg accagctgat cgaagaggta ctggctgata atcttccacc 660

tcctagccat tttgaaccac ctacccttca cgaactgtat gatttagacg tgacggcccc 720

cgaagatccc aacgaggagg cggtttcgca gatttttccc gactctgtaa tgttggcggt 780

gcaggaaggg attgacttac tcacttttcc gccggcgccc ggttctccgg agccgcctca 840

cctttcccgg cagcccgagc agccggagca gagagccttg ggtccggttt ctatgccaaa 900

ccttgtaccg gaggtgatcg atcttacctg ccacgaggct ggctttccac ccagtgacga 960

cgaggatgaa gagggtgagg agtttgtgtt agattatgtg gagcaccccg ggcacggttg 1020

caggtcttgt cattatcacc ggaggaatac gggggaccca gatattatgt gttcgctttg 1080

ctatatgagg acctgtggca tgtttgtcta cagtaagtga aaattatggg cagtgggtga 1140

tagagtggtg ggtttggtgt ggtaattttt tttttaattt ttacagtttt gtggtttaaa 1200

gaattttgta ttgtgatttt tttaaaaggt cctgtgtctg aacctgagcc tgagcccgag 1260

ccagaaccgg agcctgcaag acctacccgc cgtcctaaaa tggcgcctgc tatcctgaga 1320

cgcccgacat cacctgtgtc tagagaatgc aatagtagta cggatagctg tgactccggt 1380

ccttctaaca cacctcctga gatacacccg gtggtcccgc tgtgccccat taaaccagtt 1440

gccgtgagag ttggtgggcg tcgccaggct gtggaatgta tcgaggactt gcttaacgag 1500

cctgggcaac ctttggactt gagctgtaaa cgccccaggc cataaggtgt aaacctgtga 1560

ttgcgtgtgt ggttaacgcc tttgtttgct gaatgagttg atgtaagttt aataaagggt 1620

gagataatgt ttaacttgca tggcgtgtta aatggggcgg ggcttaaagg gtatataatg 1680

cgccgtgggc taatcttggt tacatctgac ctcatggagg cttgggagtg tttggaagat 1740

ttttctgctg tgcgtaactt gctggaacag agctctaaca gtacctcttg gttttggagg 1800

tttctgtggg gctcatccca ggcaaagtta gtctgcagaa ttaaggagga ttacaagtgg 1860

gaatttgaag agcttttgaa atcctgtggt gagctgtttg attctttgaa tctgggtcac 1920

caggcgcttt tccaagagaa ggtcatcaag actttggatt tttccacacc ggggcgcgct 1980

gcggctgctg ttgctttttt gagttttata aaggataaat ggagcgaaga aacccatctg 2040

agcggggggt acctgctgga ttttctggcc atgcatctgt ggagagcggt tgtgagacac 2100

aagaatcgcc tgctactgtt gtcttccgtc cgcccggcga taataccgac ggaggagcag 2160

cagcagcagc aggaggaagc caggcggcgg cggcaggagc agagcccatg gaacccgaga 2220

gccggcctgg accctcggga atgaatgttg tacaggtggc tgaactgtat ccagaactga 2280

gacgcatttt gacaattaca gaggatgggc aggggctaaa gggggtaaag agggagcggg 2340

gggcttgtga ggctacagag gaggctagga atctagcttt tagcttaatg accagacacc 2400

gtcctgagtg tattactttt caacagatca aggataattg cgctaatgag cttgatctgc 2460

tggcgcagaa gtattccata gagcagctga ccacttactg gctgcagcca ggggatgatt 2520

ttgaggaggc tattagggta tatgcaaagg tggcacttag gccagattgc aagtacaaga 2580

tcagcaaact tgtaaatatc aggaattgtt gctacatttc tgggaacggg gccgaggtgg 2640

agatagatac ggaggatagg gtggccttta gatgtagcat gataaatatg tggccggggg 2700

tgcttggcat ggacggggtg gttattatga atgtaaggtt tactggcccc aattttagcg 2760

gtacggtttt cctggccaat accaacctta tcctacacgg tgtaagcttc tatgggttta 2820

acaatacctg tgtggaagcc tggaccgatg taagggttcg gggctgtgcc ttttactgct 2880

gctggaaggg ggtggtgtgt cgccccaaaa gcagggcttc aattaagaaa tgcctctttg 2940

aaaggtgtac cttgggtatc ctgtctgagg gtaactccag ggtgcgccac aatgtggcct 3000

ccgactgtgg ttgcttcatg ctagtgaaaa gcgtggctgt gattaagcat aacatggtat 3060

gtggcaactg cgaggacagg gcctctcaga tgctgacctg ctcggacggc aactgtcacc 3120

tgctgaagac cattcacgta gccagccact ctcgcaaggc ctggccagtg tttgagcata 3180

acatactgac ccgctgttcc ttgcatttgg gtaacaggag gggggtgttc ctaccttacc 3240

aatgcaattt gagtcacact aagatattgc ttgagcccga gagcatgtcc aaggtgaacc 3300

tgaacggggt gtttgacatg accatgaaga tctggaaggt gctgaggtac gatgagaccc 3360

gcaccaggtg cagaccctgc gagtgtggcg gtaaacatat taggaaccag cctgtgatgc 3420

tggatgtgac cgaggagctg aggcccgatc acttggtgct ggcctgcacc cgcgctgagt 3480

ttggctctag cgatgaagat acagattgag gtactgaaat gtgtgggcgt ggcttaaggg 3540

tgggaaagaa tatataaggt gggggtctta tgtagttttg tatctgtttt gcagcagccg 3600

ccgccgccat gagcaccaac tcgtttgatg gaagcattgt gagctcatat ttgacaacgc 3660

gcatgccccc atgggccggg gtgcgtcaga atgtgatggg ctccagcatt gatggtcgcc 3720

ccgtcctgcc cgcaaactct actaccttga cctacgagac cgtgtctgga acgccgttgg 3780

agactgcagc ctccgccgcc gcttcagccg ctgcagccac cgcccgcggg attgtgactg 3840

actttgcttt cctgagcccg cttgcaagca gtgcagcttc ccgttcatcc gcccgcgatg 3900

acaagttgac ggctcttttg gcacaattgg attctttgac ccgggaactt aatgtcgttt 3960

ctcagcagct gttggatctg cgccagcagg tttctgccct gaaggcttcc tcccctccca 4020

atgcggttta aaacataaat aaaaaaccag actctgtttg gatttggatc aagcaagtgt 4080

cttgctgtct ttatttaggg gttttgcgcg cgcggtaggc ccgggaccag cggtctcggt 4140

cgttgagggt cctgtgtatt ttttccagga cgtggtaaag gtgactctgg atgttcagat 4200

acatgggcat aagcccgtct ctggggtgga ggtagcacca ctgcagagct tcatgctgcg 4260

gggtggtgtt gtagatgatc cagtcgtagc aggagcgctg ggcgtggtgc ctaaaaatgt 4320

ctttcagtag caagctgatt gcca 4344

<210> 2
<211> 3018
<212> DNA
<213> Artificial

<220>
<223> 505-3522 Ad5

<400> 2
gagtgccagc gagtagagtt ttctcctccg agccgctccg acaccgggac tgaaaatgag 60

acatattatc tgccacggag gtgttattac cgaagaaatg gccgccagtc ttttggacca 120

gctgatcgaa gaggtactgg ctgataatct tccacctcct agccattttg aaccacctac 180

ccttcacgaa ctgtatgatt tagacgtgac ggcccccgaa gatcccaacg aggaggcggt 240

ttcgcagatt tttcccgact ctgtaatgtt ggcggtgcag gaagggattg acttactcac 300

ttttccgccg gcgcccggtt ctccggagcc gcctcacctt tcccggcagc ccgagcagcc 360

ggagcagaga gccttgggtc cggtttctat gccaaacctt gtaccggagg tgatcgatct 420

tacctgccac gaggctggct ttccacccag tgacgacgag gatgaagagg gtgaggagtt 480

tgtgttagat tatgtggagc accccgggca cggttgcagg tcttgtcatt atcaccggag 540

gaatacgggg gacccagata ttatgtgttc gctttgctat atgaggacct gtggcatgtt 600

tgtctacagt aagtgaaaat tatgggcagt gggtgataga gtggtgggtt tggtgtggta 660

attttttttt taatttttac agttttgtgg tttaaagaat tttgtattgt gatttttta 720

aaaggtcctg tgtctgaacc tgagcctgag cccgagccag aaccggagcc tgcaagacct 780

acccgccgtc ctaaaatggc gcctgctatc ctgagacgcc cgacatcacc tgtgtctaga 840

gaatgcaata gtagtacgga tagctgtgac tccggtcctt ctaacacacc tcctgagata 900

cacccggtgg tcccgctgtg ccccattaaa ccagttgccg tgagagttgg tgggcgtcgc 960

caggctgtgg aatgtatcga ggacttgctt aacgagcctg ggcaaccttt ggacttgagc 1020

tgtaaacgcc ccaggccata aggtgtaaac ctgtgattgc gtgtgtggtt aacgcctttg 1080

tttgctgaat gagttgatgt aagtttaata aagggtgaga taatgtttaa cttgcatggc 1140

gtgttaaatg gggcggggct taaagggtat ataatgcgcc gtgggctaat cttggttaca 1200

tctgacctca tggaggcttg ggagtgtttg gaagattttt ctgctgtgcg taacttgctg 1260

gaacagagct ctaacagtac ctcttggttt tggaggtttc tgtggggctc atcccaggca 1320

aagttagtct gcagaattaa ggaggattac aagtgggaat ttgaagagct tttgaaatcc 1380

tgtggtgagc tgtttgattc tttgaatctg ggtcaccagg cgcttttcca agagaaggtc 1440

atcaagactt tggatttttc cacaccgggg cgcgctgcgg ctgctgttgc ttttttgagt 1500

tttataaagg ataaatggag cgaagaaacc catctgagcg gggggtacct gctggatttt 1560

ctggccatgc atctgtggag agcggttgtg agacacaaga atcgcctgct actgttgtct 1620

tccgtccgcc cggcgataat accgacggag gagcagcagc agcagcagga ggaagccagg 1680

cggcggcggc aggagcagag cccatggaac ccgagagccg gcctggaccc tcgggaatga 1740

atgttgtaca ggtggctgaa ctgtatccag aactgagacg cattttgaca attacagagg 1800

atgggcaggg gctaaagggg gtaaagaggg agcgggggggc ttgtgaggct acagaggagg 1860

ctaggaatct agcttttagc ttaatgacca gacaccgtcc tgagtgtatt acttttcaac 1920

agatcaagga taattgcgct aatgagcttg atctgctggc gcagaagtat tccatagagc 1980

agctgaccac ttactggctg cagccagggg atgattttga ggaggctatt agggtatatg 2040

caaaggtggc acttaggcca gattgcaagt acaagatcag caaacttgta aatatcagga 2100

attgttgcta catttctggg aacggggccg aggtggagat agatacggag gatagggtgg 2160

cctttagatg tagcatgata aatatgtggc cgggggtgct tggcatggac ggggtggtta 2220

ttatgaatgt aaggtttact ggccccaatt ttagcggtac ggttttcctg gccaatacca 2280

accttatcct acacggtgta agcttctatg ggtttaacaa tacctgtgtg gaagcctgga 2340

ccgatgtaag ggttcggggc tgtgcctttt actgctgctg gaaggggggtg gtgtgtcgcc 2400

ccaaaagcag ggcttcaatt aagaaatgcc tctttgaaag gtgtaccttg ggtatcctgt 2460

ctgagggtaa ctccagggtg cgccacaatg tggcctccga ctgtggttgc ttcatgctag 2520

tgaaaagcgt ggctgtgatt aagcataaca tggtatgtgg caactgcgag gacagggcct 2580

ctcagatgct gacctgctcg gacggcaact gtcacctgct gaagaccatt cacgtagcca 2640

gccactctcg caaggcctgg ccagtgtttg agcataacat actgacccgc tgttccttgc 2700

atttgggtaa caggaggggg gtgttcctac cttaccaatg caatttgagt cacactaaga 2760

tattgcttga gcccgagagc atgtccaagg tgaacctgaa cggggtgttt gacatgacca 2820

tgaagatctg gaaggtgctg aggtacgatg agacccgcac caggtgcaga ccctgcgagt 2880

gtggcggtaa acatattagg aaccagcctg tgatgctgga tgtgaccgag gagctgaggc 2940

ccgatcactt ggtgctggcc tgcacccgcg ctgagtttgg ctctagcgat gaagatacag 3000

attgaggtac tgaaatgt 3018

<210> 3
<211> 3575
<212> DNA
<213> Artificial

<220>
<223> 505-4079 Ad5

<400> 3
gagtgccagc gagtagagtt ttctcctccg agccgctccg acaccgggac tgaaaatgag 60

acatattatc tgccacggag gtgttattac cgaagaaatg gccgccagtc ttttggacca 120

gctgatcgaa gaggtactgg ctgataatct tccacctcct agccattttg aaccacctac 180

ccttcacgaa ctgtatgatt tagacgtgac ggcccccgaa gatcccaacg aggaggcggt 240

ttcgcagatt tttcccgact ctgtaatgtt ggcggtgcag gaagggattg acttactcac 300

ttttccgccg gcgcccggtt ctccggagcc gcctcacctt tcccggcagc ccgagcagcc 360

ggagcagaga gccttgggtc cggtttctat gccaaacctt gtaccggagg tgatcgatct 420

tacctgccac gaggctggct ttccacccag tgacgacgag gatgaagagg gtgaggagtt 480

tgtgttagat tatgtggagc accccgggca cggttgcagg tcttgtcatt atcaccggag 540

gaatacgggg gacccagata ttatgtgttc gctttgctat atgaggacct gtggcatgtt 600

tgtctacagt aagtgaaaat tatgggcagt gggtgataga gtggtgggtt tggtgtggta 660

attttttttt taatttttac agttttgtgg tttaaagaat tttgtattgt gatttttta 720

aaaggtcctg tgtctgaacc tgagcctgag cccgagccag aaccggagcc tgcaagacct 780

acccgccgtc ctaaaatggc gcctgctatc ctgagacgcc cgacatcacc tgtgtctaga 840

gaatgcaata gtagtacgga tagctgtgac tccggtcctt ctaacacacc tcctgagata 900

cacccggtgg tcccgctgtg ccccattaaa ccagttgccg tgagagttgg tgggcgtcgc 960

caggctgtgg aatgtatcga ggacttgctt aacgagcctg ggcaaccttt ggacttgagc 1020

tgtaaacgcc ccaggccata aggtgtaaac ctgtgattgc gtgtgtggtt aacgcctttg 1080

tttgctgaat gagttgatgt aagtttaata aagggtgaga taatgtttaa cttgcatggc 1140

gtgttaaatg gggcggggct taaagggtat ataatgcgcc gtgggctaat cttggttaca 1200

tctgacctca tggaggcttg ggagtgtttg gaagattttt ctgctgtgcg taacttgctg 1260

gaacagagct ctaacagtac ctcttggttt tggaggtttc tgtggggctc atcccaggca 1320

aagttagtct gcagaattaa ggaggattac aagtgggaat ttgaagagct tttgaaatcc 1380

tgtggtgagc tgtttgattc tttgaatctg ggtcaccagg cgcttttcca agagaaggtc 1440

atcaagactt tggatttttc cacaccgggg cgcgctgcgg ctgctgttgc ttttttgagt 1500

tttataaagg ataaatggag cgaagaaacc catctgagcg gggggtacct gctggatttt 1560

ctggccatgc atctgtggag agcggttgtg agacacaaga atcgcctgct actgttgtct 1620

tccgtccgcc cggcgataat accgacggag gagcagcagc agcagcagga ggaagccagg 1680

cggcggcggc aggagcagag cccatggaac ccgagagccg gcctggaccc tcgggaatga 1740

atgttgtaca ggtggctgaa ctgtatccag aactgagacg cattttgaca attacagagg 1800

atgggcaggg gctaaagggg gtaaagaggg agcgggggggc ttgtgaggct acagaggagg 1860

ctaggaatct agcttttagc ttaatgacca gacaccgtcc tgagtgtatt acttttcaac 1920

agatcaagga taattgcgct aatgagcttg atctgctggc gcagaagtat tccatagagc 1980

agctgaccac ttactggctg cagccagggg atgattttga ggaggctatt agggtatatg 2040

caaaggtggc acttaggcca gattgcaagt acaagatcag caaacttgta aatatcagga 2100

attgttgcta catttctggg aacggggccg aggtggagat agatacggag gatagggtgg 2160

cctttagatg tagcatgata aatatgtggc cgggggtgct tggcatggac ggggtggtta 2220

ttatgaatgt aaggtttact ggccccaatt ttagcggtac ggttttcctg gccaatacca 2280

accttatcct acacggtgta agcttctatg ggtttaacaa tacctgtgtg gaagcctgga 2340

ccgatgtaag ggttcggggc tgtgcctttt actgctgctg gaaggggggtg gtgtgtcgcc 2400

ccaaaagcag ggcttcaatt aagaaatgcc tctttgaaag gtgtaccttg ggtatcctgt 2460

ctgagggtaa ctccagggtg cgccacaatg tggcctccga ctgtggttgc ttcatgctag 2520

tgaaaagcgt ggctgtgatt aagcataaca tggtatgtgg caactgcgag gacagggcct 2580

ctcagatgct gacctgctcg gacggcaact gtcacctgct gaagaccatt cacgtagcca 2640

gccactctcg caaggcctgg ccagtgtttg agcataacat actgacccgc tgttccttgc 2700

atttgggtaa caggaggggg gtgttcctac cttaccaatg caatttgagt cacactaaga 2760

tattgcttga gcccgagagc atgtccaagg tgaacctgaa cggggtgttt gacatgacca 2820

tgaagatctg gaaggtgctg aggtacgatg agacccgcac caggtgcaga ccctgcgagt 2880

gtggcggtaa acatattagg aaccagcctg tgatgctgga tgtgaccgag gagctgaggc 2940

ccgatcactt ggtgctggcc tgcacccgcg ctgagtttgg ctctagcgat gaagatacag 3000

attgaggtac tgaaatgtgt gggcgtggct taagggtggg aaagaatata taaggtgggg 3060

gtcttatgta gttttgtatc tgttttgcag cagccgccgc cgccatgagc accaactcgt 3120

ttgatggaag cattgtgagc tcatatttga caacgcgcat gcccccatgg gccggggtgc 3180

gtcagaatgt gatgggctcc agcattgatg gtcgccccgt cctgcccgca aactctacta 3240

ccttgaccta cgagaccgtg tctggaacgc cgttggagac tgcagcctcc gccgccgctt 3300

cagccgctgc agccaccgcc cgcgggattg tgactgactt tgctttcctg agcccgcttg 3360

caagcagtgc agcttcccgt tcatccgccc gcgatgacaa gttgacggct cttttggcac 3420

aattggattc tttgacccgg gaacttaatg tcgtttctca gcagctgttg gatctgcgcc 3480

agcaggtttc tgccctgaag gcttcctccc ctcccaatgc ggtttaaaac ataaataaaa 3540

aaccagactc tgtttggatt tggatcaagc aagtg 3575

<210> 4
<211> 2499
<212> DNA
<213> Artificial

<220>
<223> SV40 T-antigen

<400> 4
atcatggata aagttttaaa cagagaggaa tctttgcagc taatggacct tctaggtctt 60

gaaaggagtg cctgggggaa tattcctctg atgagaaagg catatttaaa aaaatgcaag 120

gagtttcatc ctgataaagg aggagatgaa gaaaaaatga agaaaatgaa tactctgtac 180

aagaaaatgg aagatggagt aaaatatgct catcaacctg actttggagg cttctgggat 240

gcaactgagg tatttgcttc ttccttaaat cctggtgttg atgcaatgta ctgcaaacaa 300

tggcctgagt gtgcaaagaa aatgtctgct aactgcatat gcttgctgtg cttactgagg 360

atgaagcatg aaaatagaaa attatacagg aaagatccac ttgtgtgggt tgattgctac 420

tgcttcgatt gctttagaat gtggtttgga cttgatcttt gtgaaggaac cttacttctg 480

tggtgtgaca taattggaca aactacctac agagatttaa agctctaagg taaatataaa 540

atttttaagt gtataatgtg ttaaactact gattctaatt gtttgtgtat tttagattcc 600

aacctatgga actgatgaat gggagcagtg gtggaatgcc tttaatgagg aaaacctgtt 660

ttgctcagaa gaaatgccat ctagtgatga tgaggctact gctgactctc aacattctac 720

tcctccaaaa aagaagagaa aggtagaaga ccccaaggac tttccttcag aattgctaag 780

ttttttgagt catgctgtgt ttagtaatag aactcttgct tgctttgcta tttacaccac 840

aaaggaaaaa gctgcactgc tatacaagaa aattatggaa aaatattctg taacctttat 900

aagtaggcat aacagttata atcataacat actgtttttt cttactccac acaggcatag 960

agtgtctgct attaataact atgctcaaaa attgtgtacc tttagctttt taatttgtaa 1020

aggggttaat aaggaatatt tgatgtatag tgccttgact agagatccat tttctgttat 1080

tgaggaaagt ttgccaggtg ggttaaagga gcatgatttt aatccagaag aagcagagga 1140

aactaaacaa gtgtcctgga agcttgtaac agagtatgca atggaaacaa aatgtgatga 1200

tgtgttgtta ttgcttggga tgtacttgga atttcagtac agttttgaaa tgtgtttaaa 1260

atgtattaaa aaagaacagc ccagccacta taagtaccat gaaaagcatt atgcaaatgc 1320

tgctatattt gctgacagca aaaaccaaaa aaccatatgc caacaggctg ttgatactgt 1380

tttagctaaa aagcgggttg atagcctaca attaactaga gaacaaatgt taacaaacag 1440

atttaatgat cttttggata ggatggatat aatgtttggt tctacaggct ctgctgacat 1500

agaagaatgg atggctggag ttgcttggct acactgtttg ttgcccaaaa tggattcagt 1560

ggtgtatgac tttttaaaat gcatggtgta caacattcct aaaaaaagat actggctgtt 1620

taaaggacca attgatagtg gtaaaactac attagcagct gctttgcttg aattatgtgg 1680

ggggaaagct ttaaatgtta atttgccctt ggacaggctg aactttgagc taggagtagc 1740

tattgaccag tttttagtag tttttgagga tgtaaagggc actggagggg agtccagaga 1800

tttgccttca ggtcagggaa ttaataacct ggacaattta agggattatt tggatggcag 1860

tgttaaggta aacttagaaa agaaacacct aaataaaaga actcaaatat ttccccctgg 1920

aatagtcacc atgaatgagt acagtgtgcc taaaacactg caggccagat ttgtaaaaca 1980

aatagatttt aggcccaaag attatttaaa gcattgcctg gaacgcagtg agtttttgtt 2040

agaaaagaga ataattcaaa gtggcattgc tttgcttctt atgttaattt ggtacagacc 2100

tgtggctgag tttgctcaaa gtattcagag cagaattgtg gagtggaaag agagattgga 2160

caaagagttt agtttgtcag tgtatcaaaa aatgaagttt aatgtggcta tgggaattgg 2220

agttttagat tggctaagaa acagtgatga tgatgatgaa gacagccagg aaaatgctga 2280

taaaaatgaa gatggtgggg agaagaacat ggaagactca gggcatgaaa caggcattga 2340

ttcacagtcc caaggctcat ttcaggcccc tcagtcctca cagtctgttc atgatcataa 2400

tcagccatac cacatttgta gaggttttac ttgctttaaa aaacctccca cacctccccc 2460

tgaacctgaa acataaggat ccagcgatcc gcctgaatt 2499

<210> 5
<211> 523
<212> DNA
<213> Artificial

<220>
<223> CMV promoter

<400> 5
gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc ccgcccattg 60

acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca ttgacgtcaa 120

tgggtggagt atttacggta aactgcccac ttggcagtac atcaagtgta tcatatgcca 180

agtacgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta tgcccagtac 240

atgaccttat gggactttcc tacttggcag tacatctacg tattagtcat cgctattacc 300

atggtgatgc ggttttggca gtacatcaat gggcgtggat agcggtttga ctcacgggga 360

tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca aaatcaacgg 420

gactttccaa aatgtcgtaa caactccgcc ccattgacgc aaatgggcgg taggcgtgta 480

cggtgggagg tctatataag cagagctcgt ttagtgaacc gtc 523

<210> 6
<211> 97
<212> DNA
<213> Artificial

<220>
<223> SV40 SD/SA (intron)

<400> 6
taagtttagt ctttttgtct tttatttcag gtcccggatc cggtggtggt gcaaatcaaa 60

gaactgctcc tcagtggatg ttgcctttac ttctagg 97

<210> 7
<211> 147
<212> DNA
<213> Artificial

<220>
<223> SV40 polyA (T-antigen)

<400> 7
ggggatccag acatgataag atacattgat gagtttggac aaaccacaac tagaatgcag 60

tgaaaaaaat gctttatttg tgaaatttgt gatgctattg ctttatttgt aaccattata 120

agctgcaata aacaagttaa caacaac 147

<210> 8

<211> 1926
<212> DNA
<213> Artificial

<220>
<223> EBNA-1

<400> 8
atgtctgacg aggggccagg tacaggacct ggaaatggcc taggagagaa gggagacaca 60

tctggaccag aaggctccgg cggcagtgga cctcaaagaa gaggggtga taaccatgga 120

cgaggacggg gaagaggacg aggacgagga ggcggaagac caggagcccc gggcggctca 180

ggatcagggc caagacatag agatggtgtc cggagacccc aaaaacgtcc aagttgcatt 240

ggctgcaaag ggacccacgg tggaacagga gcaggagcag gagcgggagg ggcaggagca 300

ggaggggcag gagcaggagg aggggcagga gcaggaggag gggcaggagg ggcaggaggg 360

gcaggagggg caggagcagg aggaggggca ggagcaggag gaggggcagg aggggcagga 420

ggggcaggag caggaggagg ggcaggagca ggaggagggg caggaggggc aggagcagga 480

ggaggggcag gaggggcagg aggggcagga gcaggaggag gggcaggagc aggaggaggg 540

gcaggagggg caggagcagg aggaggggca ggaggggcag gaggggcagg agcaggagga 600

ggggcaggag caggaggggc aggaggggca ggaggggcag gagcaggagg ggcaggagca 660

ggaggagggg caggaggggc aggaggggca ggagcaggag gggcaggagc aggaggggca 720

ggagcaggag gggcaggagc aggaggggca ggaggggcag gagcaggagg ggcaggaggg 780

gcaggagcag gaggggcagg aggggcagga gcaggaggag gggcaggagg ggcaggagca 840

ggaggagggg caggaggggc aggagcagga ggggcaggag gggcaggagc aggaggggca 900

ggaggggcag gagcaggagg ggcaggaggg gcaggagcag gaggaggggc aggagcagga 960

ggggcaggag caggaggtgg aggccggggt cgaggaggca gtggaggccg gggtcgagga 1020

ggtagtggag gccggggtcg aggaggtagt ggaggccgcc ggggtagagg acgtgaaaga 1080

gccaggggggg gaagtcgtga aagagccagg gggagaggtc gtggacgtgg agaaaagagg 1140

cccaggagtc ccagtagtca gtcatcatca tccgggtctc caccgcgcag gccccctcca 1200

ggtagaaggc catttttcca ccctgtaggg gaagccgatt attttgaata ccaccaagaa 1260

ggtggcccag atggtgagcc tgacgtgccc ccgggagcga tagagcaggg ccccgcagat 1320

gacccaggag aaggcccaag cactggaccc cggggtcagg gtgatggagg caggcgcaaa 1380

aaaggagggt ggtttggaaa gcatcgtggt caaggaggtt ccaacccgaa atttgagaac 1440

attgcagaag gtttaagagc tctcctggct aggagtcacg tagaaaggac taccgacgaa 1500

ggaacttggg tcgccggtgt gttcgtatat ggaggtagta agacctccct ttacaaccta 1560

aggcgaggaa ctgcccttgc tattccacaa tgtcgtctta caccattgag tcgtctcccc 1620

tttggaatgg cccctggacc cggcccacaa cctggcccgc taagggagtc cattgtctgt 1680

tatttcatgg tctttttaca aactcatata tttgctgagg ttttgaagga tgcgattaag 1740

gaccttgtta tgacaaagcc cgctcctacc tgcaatatca gggtgactgt gtgcagcttt 1800

gacgatggag tagatttgcc tccctggttt ccacctatgg tggaaggggc tgccgcggag 1860

ggtgatgacg gagatgacgg agatgaagga ggtgatggag atgagggtga ggaagggcag 1920

gagtga 1926

<210> 9
<211> 29
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 9
ccggaattct ttgcaaaagc ctaggcctc 29

<210> 10
<211> 29
<212> DNA
<213> Artificial

<220>
<223> Primer

<400> 10
ccggaattct gaggcggaaa gaaccagct 29

<210> 11
<211> 359
<212> DNA
<213> Artificial

<220>
<223> SV40 ori

<400> 11
tttgcaaaag cctaggcctc caaaaaagcc tcctcactac ttctggaata gctcagaggc 60

cgaggcggcc tcggcctctg cataaataaa aaaaattagt cagccatggg gcggagaatg 120

ggcggaactg ggcggagtta ggggcgggat gggcggagtt aggggcggga ctatggttgc 180

tgactaattg agatgcatgc tttgcatact tctgcctgct ggggagcctg gggactttcc 240

acacctggtt gctgactaat tgagatgcat gctttgcata cttctgcctg ctggggagcc 300

tggggacttt ccacacccta actgacacac attccacagc tggttctttc cgcctcaca 359

<210> 12
<211> 1378
<212> DNA
<213> Artificial

<220>
<223> hAAT

<400> 12
attctgcagg gggggggggg ggctgggaca gtgaatcgac aatgccgtct tctgtctcgt 60

ggggcatcct cctgctggca ggcctgtgct gcctggtccc tgtctccctg gctgaggatc 120

cccagggaga tgctgcccag aagacagata catcccacca tgatcaggat cacccaacct 180

tcaacaagat caccccccaac ctggctgagt tcgccttcag cctataccgc cagctggcac 240

accagtccaa cagcaccaat atcttcttct ccccagtgag catcgctaca gcctttgcaa 300

tgctctccct ggggaccaag gctgacactc acgatgaaat cctggagggc ctgaatttca 360

acctcacgga gattccggag gctcagatcc atgaaggctt ccaggaactc ctccgtaccc 420

tcaaccagcc agacagccag ctccagctga ccaccggcaa tggcctgttc ctcagcgagg 480

gcctgaagct agtggataag tttttggagg atgttaaaaa gttgtaccac tcagaagcct 540

tcactgtcaa cttcggggac accgaagagg ccaagaaaca gatcaacgat tacgtggaga 600

agggtactca agggaaaatt gtggatttgg tcaaggagct tgacagagac acagtttttg 660

ctctggtgaa ttacatcttc tttaaaggca aatgggagag acccttgaa gtcaaggaca 720

ccgaggaaga ggacttccac gtggaccagg tgaccaccgt gaaggtgcct atgatgaagc 780

gtttaggcat gtttaacatc cagcactgta agaagctgtc cagctgggtg ctgctgatga 840

aatacctggg caatgccacc gccatcttct tcctgcctga tgaggggaaa ctacagcacc 900

tggaaaatga actcacccac gatatcatca ccaagttcct ggaaaatgaa gacagaaggt 960

ctgccagctt acatttaccc aaactgtcca ttactggaac ctatgatctg aagagcgtcc 1020

tgggtcaact gggcatcact aaggtcttca gcaatggggc tgacctctcc ggggtcacag 1080

aggaggcacc cctgaagctc tccaaggccg tgcataaggc tgtgctgacc atcgacgaga 1140

aagggactga agctgctggg gccatgtttt tagaggccat acccatgtct atccccccccg 1200

aggtcaagtt caacaaaccc tttgtcttct taatgattga acaaaatacc aagtctcccc 1260

tcttcatggg aaaagtggtg aatcccaccc aaaaataact gcctctcgct cctcaacccc 1320

tcccctccat ccctggcccc ctccctggat gacattaaag aagggttgag ctggattg 1378