

sequencelisting
SEQUENCE LISTING

<110> BIOMARIN PHARMACEUTICAL INC.
Bunting, et al.

<120> ADENO-ASSOCIATED VIRUS FACTOR VIII VECTORS, ASSOCIATED VIRAL
PARTICLES AND THERAPEUTIC FORMULATIONS COMPRISING THE SAME

<130> 30610/50068

<160> 44

<170> PatentIn version 3.5

<210> 1

<211> 4970

<212> DNA

<213> Adeno-Associated Virus

<400> 1

ttggccactc cctctctgcg cgctcgctcg ctcactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttcctgtttg ctgcttgcaa tgtttgccca ttttaggggtg	180
gacacaggac gctgtggttt ctgagccagg gggcgactca gatcccagcc agtggactta	240
gcccctgttt gtcctccga taactggggt gaccttggtt aatattcacc agcagcctcc	300
cccgttgccc ctctggatcc actgcttaaa tacggacgag gacagggccc tgtctcctca	360
gcttcaggca ccaccactga cctgggacag tgaatcgcca ccatgcagat tgagctgagc	420
acctgcttct tcctgtgcct gctgagggtt tgcttctctg ccaccaggag atactacctg	480
ggggctgtgg agctgagctg ggactacatg cagtctgacc tgggggagct gcctgtggat	540
gccaggttcc ccccagagt gcccaagagc ttccccttca acacctctgt ggtgtacaag	600
aagaccctgt ttgtggagtt cactgaccac ctgttcaaca ttgccaagcc caggcccccc	660
tggtatgggcc tgctgggccc caccatccag gctgaggtgt atgacactgt ggtgatcacc	720
ctgaagaaca tggccagcca ccctgtgagc ctgcatgctg tgggggtgag ctactggaag	780
gcctctgagg gggctgagta tgatgaccag accagccaga gggagaagga ggatgacaag	840
gtgttccctg ggggcagcca cacctatgtg tggcaggtgc tgaaggagaa tggcccatg	900
gcctctgacc ccctgtgcct gacctacagc tacctgagcc atgtggacct ggtgaaggac	960

sequencelisting

ctgaactctg gcctgattgg ggccctgctg gtgtgcaggg agggcagcct ggccaaggag	1020
aagacccaga ccctgcacaa gttcatcctg ctgtttgctg tgtttgatga gggcaagagc	1080
tggcactctg aaaccaagaa cagcctgatg caggacaggg atgctgcctc tgccagggcc	1140
tggcccaaga tgcacactgt gaatggctat gtgaacagga gcctgcctgg cctgattggc	1200
tgccacagga agtctgtgta ctggcatgtg attggcatgg gcaccacccc tgaggtgcac	1260
agcatcttcc tggagggcca caccttcctg gtcaggaacc acaggcaggc cagcctggag	1320
atcagcccca tcaccttcct gactgcccag accctgctga tggacctggg ccagttcctg	1380
ctgttctgcc acatcagcag ccaccagcat gatggcatgg aggcctatgt gaaggtggac	1440
agctgccctg aggagcccca gctgaggatg aagaacaatg aggaggctga ggactatgat	1500
gatgacctga ctgactctga gatggatgtg gtgaggtttg atgatgacaa cagccccagc	1560
ttcatccaga tcaggtctgt ggccaagaag caccccaaga cctgggtgca ctacattgct	1620
gctgaggagg aggactggga ctatgcccc ctggtgctgg cccctgatga caggagctac	1680
aagagccagt acctgaacaa tggccccagc aggattggca ggaagtacaa gaaggtcagg	1740
ttcatggcct aactgatga aaccttcaag accaggaggg ccatccagca tgagtctggc	1800
atcctgggcc ccctgctgta tggggagggtg ggggacaccc tgctgatcat cttcaagaac	1860
caggccagca ggccctacaa catctacccc catggcatca ctgatgtgag gccctgtac	1920
agcaggaggc tgccaagggt ggtgaagcac ctgaaggact tccccatcct gcctggggag	1980
atcttcaagt acaagtggac tgtgactgtg gaggatggcc ccaccaagtc tgaccccagg	2040
tgctgacca gatactacag cagctttgtg aacatggaga gggacctggc ctctggcctg	2100
attggcccc tgctgatctg ctacaaggag tctgtggacc agaggggcaa ccagatcatg	2160
tctgacaaga ggaatgtgat cctgttctct gtgtttgatg agaacaggag ctggtacctg	2220
actgagaaca tccagagggt cctgccaac cctgctgggg tgacagctgga ggacctgag	2280
ttccaggcca gcaacatcat gcacagcatc aatggctatg tgtttgacag cctgcagctg	2340
tctgtgtgcc tgcattgagg ggcctactgg tacatcctga gcattggggc ccagactgac	2400
ttcctgtctg tgttcttctc tggctacacc ttcaagcaca agatggtgta tgaggacacc	2460
ctgaccctgt tcccccttc tggggagact gtgttcatga gcatggagaa ccctggcctg	2520

sequencelisting						
tggattctgg	gctgccacaa	ctctgacttc	aggaacaggg	gcatgactgc	cctgctgaaa	2580
gtctccagct	gtgacaagaa	cactgggggac	tactatgagg	acagctatga	ggacatctct	2640
gcctacctgc	tgagcaagaa	caatgccatt	gagcccagga	gcttcagcca	gaacccccca	2700
gtgctgaaga	ggcaccagag	ggagatcacc	aggaccaccc	tgcagtctga	ccaggaggag	2760
attgactatg	atgacaccat	ctctgtggag	atgaagaagg	aggactttga	catctacgac	2820
gaggacgaga	accagagccc	caggagcttc	cagaagaaga	ccaggcacta	cttcattgct	2880
gctgtggaga	ggctgtggga	ctatggcatg	agcagcagcc	cccatgtgct	gaggaacagg	2940
gcccagtctg	gctctgtgcc	ccagttcaag	aaggtggtgt	tccaggagtt	cactgatggc	3000
agcttcaccc	agcccctgta	cagagggggag	ctgaatgagc	acctgggcct	gctgggcccc	3060
tacatcaggg	ctgaggtgga	ggacaacatc	atggtgacct	tcaggaacca	ggccagcagg	3120
ccctacagct	tctacagcag	cctgatcagc	tatgaggagg	accagaggca	gggggctgag	3180
cccaggaaga	actttgtgaa	gcccatagaa	accaagacct	acttctggaa	ggtgcagcac	3240
cacatggccc	ccaccaagga	tgagtttgac	tgcaaggcct	gggcctactt	ctctgatgtg	3300
gacctggaga	aggatgtgca	ctctggcctg	attggcccc	tgctggtgtg	ccacaccaac	3360
accctgaacc	ctgcccattg	caggcaggtg	actgtgcagg	agtttgcctt	gttcttcacc	3420
atctttgatg	aaaccaagag	ctggtacttc	actgagaaca	tggagaggaa	ctgcaggggc	3480
ccctgcaaca	tccagatgga	ggaccccacc	ttcaaggaga	actacagggt	ccatgccatc	3540
aatggctaca	tcatggacac	cctgcctggc	ctggtgatgg	cccaggacca	gaggatcagg	3600
tggtaacctg	tgagcatggg	cagcaatgag	aacatccaca	gcatccactt	ctctggccat	3660
gtgttcactg	tgaggaagaa	ggaggagtac	aagatggccc	tgtacaacct	gtaccctggg	3720
gtgtttgaga	ctgtggagat	gctgcccagc	aaggctggca	tctggagggt	ggagtgcctg	3780
attggggagc	acctgcatgc	tggcatgagc	accctgttcc	tgggtgtacag	caacaagtgc	3840
cagaccccc	tgggcatggc	ctctggccac	atcagggact	tccagatcac	tgccctctggc	3900
cagtatggcc	agtgggcccc	caagctggcc	aggctgcact	actctggcag	catcaatgcc	3960
tggagcacca	aggagccctt	cagctggatc	aaggtggacc	tgctggcccc	catgatcatc	4020
catggcatca	agaccaggg	ggccaggcag	aagttcagca	gcctgtacat	cagccagttc	4080

sequencelisting

atcatcatgt acagcctgga tggcaagaag tggcagacct acaggggcaa cagcactggc	4140
accctgatgg tgttctttgg caatgtggac agctctggca tcaagcacia catcttcaac	4200
cccccatca ttgccagata catcaggctg caccacccc actacagcat caggagcacc	4260
ctgaggatgg agctgatggg ctgtgacctg aacagctgca gcatgcccct gggcatggag	4320
agcaaggcca tctctgatgc ccagatcact gccagcagct acttcaccaa catgtttgcc	4380
acctggagcc ccagcaaggc caggctgcac ctgcagggca ggagcaatgc ctggaggccc	4440
cagggtcaaca accccaagga gtggctgcag gtggacttcc agaagaccat gaaggtgact	4500
ggggtgacca cccagggggg gaagagcctg ctgaccagca tgtatgtgaa ggagttcctg	4560
atcagcagca gccaggatgg ccaccagtgg accctgttct tccagaatgg caaggtgaag	4620
gtgttccagg gcaaccagga cagcttcacc cctgtggtga acagcctgga cccccctg	4680
ctgaccagat acctgaggat tcacccccag agctgggtgc accagattgc cctgaggatg	4740
gaggtgctgg gctgtgaggc ccaggacctg tactgaaata aaagatcttt attttcatta	4800
gatctgtgtg ttggtttttt gtgtgaggaa cccctagtga tggagttggc cactccctct	4860
ctgcgcgctc gctcgctcac tgaggccggg cgaccaaagg tcgcccgcg cccgggcttt	4920
gcccgggcgg cctcagttag cgagcgagcg cgagagagg gagtggccaa	4970

<210> 2

<211> 4950

<212> DNA

<213> Adeno-Associated Virus

<400> 2

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tctgtttg ctgcttcaa tgtttgccca ttttagggtg gacacaggac	180
gctgtggttt ctgagccagg gggcgactca gatcccagcc agtggactta gccctgttt	240
gctcctccga taactggggg gaccttggtt aatattcacc agcagcctcc cccgttgccc	300
ctctggatcc actgcttaaa tacggacgag gacagggcc tgtctcctca gcttcaggca	360
ccaccactga cctgggacag tgaatcgcca ccatgcagat tgagctgagc acctgcttct	420
tcctgtgcct gctgaggttc tgcttctctg ccaccaggag atactacctg ggggctgtgg	480

sequencelisting

agctgagctg ggactacatg cagtctgacc tgggggagct gcctgtggat gccaggttcc	540
ccccagagt gcccaagagc ttccccttca acacctctgt ggtgtacaag aagaccctgt	600
ttgtggagtt cactgaccac ctgttcaaca ttgccaagcc caggcccccc tggatgggcc	660
tgctggggcc caccatccag gctgaggtgt atgacactgt ggtgatcacc ctgaagaaca	720
tggccagcca ccctgtgagc ctgcatgctg tgggggtgag ctactggaag gcctctgagg	780
gggctgagta tgatgaccag accagccaga gggagaagga ggatgacaag gtgttcctgt	840
ggggcagcca cacctatgtg tggcaggtgc tgaaggagaa tggccccatg gcctctgacc	900
ccctgtgcct gacctacagc tacctgagcc atgtggacct ggtgaaggac ctgaactctg	960
gcctgattgg ggccctgctg gtgtgcaggg agggcagcct ggccaaggag aagaccaga	1020
ccctgcacaa gttcatcctg ctgtttgctg tgtttgatga gggcaagagc tggcactctg	1080
aaaccaagaa cagcctgatg caggacaggg atgctgcctc tgccagggcc tggcccaaga	1140
tgacactgt gaatggctat gtgaacagga gcctgcctgg cctgattggc tgccacagga	1200
agtctgtgta ctggcatgtg attggcatgg gcaccacccc tgaggtgcac agcatcttcc	1260
tggagggcca caccttcctg gtcaggaacc acaggcaggc cagcctggag atcagcccca	1320
tcaccttcct gactgcccag accctgctga tggacctggg ccagttcctg ctgttctgcc	1380
acatcagcag ccaccagcat gatggcatgg aggcctatgt gaaggtggac agctgccctg	1440
aggagcccca gctgaggatg aagaacaatg aggaggctga ggactatgat gatgacctga	1500
ctgactctga gatggatgtg gtgaggtttg atgatgacaa cagccccagc ttcatccaga	1560
tcaggtctgt ggccaagaag caccccaaga cctgggtgca ctacattgct gctgaggagg	1620
aggactggga ctatgcccc ctggtgctgg cccctgatga caggagctac aagagccagt	1680
acctgaacaa tggccccag aggattggca ggaagtacaa gaaggtcagg ttcatggcct	1740
acactgatga aaccttcaag accaggagg ccatccagca tgagtctggc atcctgggcc	1800
ccctgctgta tggggaggtg ggggacacc tgctgatcat cttcaagaac caggccagca	1860
ggccctacaa catctacccc catggcatca ctgatgtgag gccctgtac agcaggaggc	1920
tgcccaaggg ggtgaagcac ctgaaggact tccccatcct gcctggggag atcttcaagt	1980
acaagtggac tgtgactgtg gaggatggcc ccaccaagtc tgaccccagg tgcctgacca	2040

sequencelisting

gatactacag cagctttgtg aacatggaga gggacctggc ctctggcctg attggccccc	2100
tgctgatctg ctacaaggag tctgtggacc agagggggcaa ccagatcatg tctgacaaga	2160
ggaatgtgat cctgtttctt gtgtttgatg agaacaggag ctggtacctg actgagaaca	2220
tccagagggt cctgcccac cctgctgggg tgcagctgga ggacctgag ttccaggcca	2280
gcaacatcat gcacagcatc aatggctatg tgtttgacag cctgcagctg tctgtgtgcc	2340
tgcatgaggt ggcctactgg tacatcctga gcattggggc ccagactgac ttcctgtctg	2400
tgttcttctc tggctacacc ttcaagcaca agatggtgta tgaggacacc ctgacctgt	2460
tcccccttctc tggggagact gtgttcatga gcatggagaa ccctggcctg tggattctgg	2520
gctgccacaa ctctgacttc aggaacaggg gcatgactgc cctgctgaaa gtctccagct	2580
gtgacaagaa cactggggac tactatgagg acagctatga ggacatctct gcctacctgc	2640
tgagcaagaa caatgccatt gagcccagga gcttcagcca gaacccccca gtgctgaaga	2700
ggcaccagag ggagatcacc aggaccacc tgcatgtctga ccaggaggag attgactatg	2760
atgacaccat ctctgtggag atgaagaagg aggactttga catctacgac gaggacgaga	2820
accagagccc caggagcttc cagaagaaga ccaggcacta cttcattgct gctgtggaga	2880
ggctgtggga ctatggcatg agcagcagcc cccatgtgct gaggaacagg gcccagtctg	2940
gctctgtgcc ccagttcaag aaggtggtgt tccaggaggt cactgatggc agcttcaccc	3000
agcccctgta cagaggggag ctgaatgagc acctgggcct gctgggcccc tacatcaggg	3060
ctgagggtgga ggacaacatc atggtgacct tcaggaacca ggccagcagg ccctacagct	3120
tctacagcag cctgatcagc tatgaggagg accagaggca gggggctgag cccaggaaga	3180
actttgtgaa gcccataa accaagacct acttctggaa ggtgcagcac cacatggccc	3240
ccaccaagga tgagtttgac tgcaaggcct gggcctactt ctctgatgtg gacctggaga	3300
aggatgtgca ctctggcctg attggccccc tgctggtgtg ccacaccaac acctgaacc	3360
ctgcccattg caggcagggt actgtgcagg agtttgcct gttcttcacc atctttgatg	3420
aaaccaagag ctggtacttc actgagaaca tggagaggaa ctgcagggcc ccctgcaaca	3480
tccagatgga ggaccccacc ttcaaggaga actacagggt ccatgccatc aatggctaca	3540
tcatggacac cctgcctggc ctggtgatgg cccaggacca gaggatcagg tggtacctgc	3600

sequencelisting

tgagcatggg cagcaatgag aacatccaca gcatccactt ctctggccat gtgttcactg	3660
tgaggaagaa ggaggagtac aagatggccc tgtacaacct gtaccctggg gtgtttgaga	3720
ctgtggagat gctgcccagc aaggctggca tctggagggt ggagtgcctg attggggagc	3780
acctgcatgc tggcatgagc accctgttcc tgggtgtacag caacaagtgc cagaccccc	3840
tgggcatggc ctctggccac atcagggact tccagatcac tgcctctggc cagtatggcc	3900
agtgggcccc caagctggcc aggctgcact actctggcag catcaatgcc tggagcacca	3960
aggagccctt cagctggatc aaggtggacc tgctggcccc catgatcatc catggcatca	4020
agaccaggg ggccaggcag aagttcagca gcctgtacat cagccagttc atcatcatgt	4080
acagcctgga tggcaagaag tggcagacct acaggggcaa cagcactggc accctgatgg	4140
tgttcttttg caatgtggac agctctggca tcaagcaca catcttcaac cccccatca	4200
ttgccagata catcaggctg caccacccc actacagcat caggagcacc ctgaggatgg	4260
agctgatggg ctgtgacctg aacagctgca gcatgcccct gggcatggag agcaaggcca	4320
tctctgatgc ccagatcact gccagcagct acttcaccaa catgtttgcc acctggagcc	4380
ccagcaaggc caggctgcac ctgcagggca ggagcaatgc ctggaggccc cagggtcaaca	4440
accccaagga gtggctgcag gtggacttcc agaagaccat gaaggtgact ggggtgacca	4500
cccaggggggt gaagagcctg ctgaccagca tgtatgtgaa ggagttcctg atcagcagca	4560
gccaggatgg ccaccagtgg accctgttct tccagaatgg caaggtgaag gtgttccagg	4620
gcaaccagga cagcttcacc cctgtggtga acagcctgga cccccctg ctgaccagat	4680
acctgaggat tcacccccag agctgggtgc accagattgc cctgaggatg gaggtgctgg	4740
gctgtgaggc ccaggacctg tactgaaata aaagatcttt attttcatta gatctgtgtg	4800
ttggtttttt gtgtgagtga tggagttggc cactccctct ctgcgcgctc gctcgctcac	4860
tgaggccggg cgaccaaagg tcgcccagc cccgggcttt gcccgggcgg cctcagttag	4920
cgagcgagcg cgagagagg gaggggccaa	4950

<210> 3

<211> 4983

<212> DNA

<213> Adeno-Associated Virus

sequencelisting

<400> 3

ttggccactc cctctctgcg cgctcgctcg ctcactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tctactgggcg actcagatcc cagccagtgg acttagcccc tgtttgctcc	180
tccgataact ggggtgacct tggttaatat tcaccagcag cctccccctg tgccccctctg	240
gatccactgc ttaaatacgg acgaggacag ggccctgtct cctcagcttc aggcaccacc	300
actgacctgg gacagtgaat cgccaccatg cagattgagc tgagcacctg cttcttcctg	360
tgcttgctga gattctgctt tagtgccacc agaagatact acctgggtgc agtggaaactg	420
tcattgggact atatgcaaag tgatctcggt gagctgcctg tggacgcaag gtaaattgccc	480
taaaatgggc aaacattgca agcagcaaac aacctggctc agaaaccaca gcgtcctgtg	540
tccattctaa tttttccttt cttcacgcag atttcctcct agagtgccaa aatcttttcc	600
attcaacacc tcagtcgtgt acaaaaagac tctgtttgta gaattcacgg atcacctttt	660
caacatcgct aagcccaggc ccccctggat gggcctgctg ggccccacca tccaggctga	720
ggtgtatgac actgtggtga tcaccctgaa gaacatggcc agccaccctg tgagcctgca	780
tgctgtgggg gtgagctact ggaaggcctc tgagggggct gagtatgatg accagaccag	840
ccagagggag aaggaggatg acaaggtgtt ccctgggggc agccacacct atgtgtggca	900
ggtgctgaag gagaatggcc ccatggcctc tgaccccctg tgcctgacct acagctacct	960
gagccatgtg gacctggtga aggacctgaa ctctggcctg attggggccc tgctggtgtg	1020
caggaggggc agcctggcca aggagaagac ccagaccctg cacaagttca tcctgctgtt	1080
tgctgtgttt gatgagggca agagctggca ctctgaaacc aagaacagcc tgatgcagga	1140
cagggatgct gcctctgcca gggcctggcc caagatgcac actgtgaatg gctatgtgaa	1200
caggagcctg cctggcctga ttggctgcca caggaagtct gtgtactggc atgtgattgg	1260
catgggcacc acccctgagg tgcacagcat cttcctggag ggccacacct tcctggtcag	1320
gaaccacagg caggccagcc tggagatcag ccccatcacc ttcctgactg cccagaccct	1380
gctgatggac ctgggccagt tcctgctgtt ctgccacatc agcagccacc agcatgatgg	1440
catggaggcc tatgtgaagg tggacagctg ccctgaggag cccagctga ggatgaagaa	1500

sequencelisting

caatgaggag gctgaggact atgatgatga cctgactgac tctgagatgg atgtggtgag	1560
gtttgatgat gacaacagcc ccagcttcat ccagatcagg tctgtggcca agaagcaccc	1620
caagacctgg gtgcactaca ttgctgctga ggaggaggac tgggactatg cccccctggt	1680
gctggccccct gatgacagga gctacaagag ccagtacctg aacaatggcc cccagaggat	1740
tggcaggaag tacaagaagg tcaggttcat ggcctacact gatgaaacct tcaagaccag	1800
ggaggccatc cagcatgagt ctggcatcct gggccccctg ctgtatgggg aggtggggga	1860
cacctgctg atcatcttca agaaccaggc cagcaggccc tacaacatct acccccatgg	1920
catcactgat gtgaggcccc tgtacagcag gaggctgccc aaggggggtga agcacctgaa	1980
ggacttcccc atcctgcctg gggagatctt caagtacaag tggactgtga ctgtggagga	2040
tggccccacc aagtctgacc ccagggtgcct gaccagatac tacagcagct ttgtgaacat	2100
ggagagggac ctggcctctg gcctgattgg cccctgctg atctgctaca aggagtctgt	2160
ggaccagagg ggcaaccaga tcatgtctga caagaggaat gtgatcctgt tctctgtgtt	2220
tgatgagaac aggagctggt acctgactga gaacatccag aggttcctgc ccaaccctgc	2280
tgggggtgcag ctggaggacc ctgagttcca ggccagcaac atcatgcaca gcatcaatgg	2340
ctatgtgttt gacagcctgc agctgtctgt gtgcctgcat gaggtggcct actggtacat	2400
cctgagcatt ggggcccaga ctgacttcct gtctgtgttc ttctctggct acaccttcaa	2460
gcacaagatg gtgtatgagg acaccctgac cctgttcccc ttctctgggg agactgtgtt	2520
catgagcatg gagaaccctg gcctgtggat tctgggctgc cacaactctg acttcaggaa	2580
caggggcatg actgccctgc tgaaagtctc cagctgtgac aagaacactg gggactacta	2640
tgaggacagc tatgaggaca tctctgccta cctgctgagc aagaacaatg ccattgagcc	2700
caggagcttc agccagaacc cccagtgct gaagaggcac cagagggaga tcaccaggac	2760
cacctgacag tctgaccagg aggagattga ctatgatgac accatctctg tggagatgaa	2820
gaaggaggac ttgacatct acgacgagga cgagaaccag agccccagga gcttcagaa	2880
gaagaccagg cactacttca ttgctgctgt ggagaggctg tgggactatg gcatgagcag	2940
cagccccat gtgctgagga acagggccca gtctggctct gtgccccagt tcaagaaggt	3000
ggtgttccag gagtgcactg atggcagctt caccagccc ctgtacagag gggagctgaa	3060

sequencelisting

tgagcacctg ggcctgctgg gcccctacat cagggctgag gtggaggaca acatcatggt	3120
gaccttcagg aaccaggcca gcaggcccta cagcttctac agcagcctga tcagctatga	3180
ggaggaccag aggcaggggg ctgagcccag gaagaacttt gtgaagccca atgaaaccaa	3240
gacctacttc tggaaggtgc agcaccacat ggccccacc aaggatgagt ttgactgcaa	3300
ggcctgggcc tacttctctg atgtggacct ggagaaggat gtgcactctg gcctgattgg	3360
ccccctgctg gtgtgccaca ccaacaccct gaaccctgcc catggcaggc aggtgactgt	3420
gcaggagttt gccctgttct tcaccatctt tgatgaaacc aagagctggt acttcactga	3480
gaacatggag aggaactgca gggccccctg caacatccag atggaggacc ccaccttcaa	3540
ggagaactac aggttccatg ccatcaatgg ctacatcatg gacaccctgc ctggcctggt	3600
gatggcccag gaccagagga tcaggtggtta cctgctgagc atgggcagca atgagaacat	3660
ccacagcatc cacttctctg gccatgtgtt cactgtgagg aagaaggagg agtacaagat	3720
ggccctgtac aacctgtacc ctggggtgtt tgagactgtg gagatgctgc ccagcaaggc	3780
tggcatctgg aggggtggagt gcctgattgg ggagcacctg catgctggca tgagcacctt	3840
gttcctgggtg tacagcaaca agtgccagac cccctgggc atggcctctg gccacatcag	3900
ggacttccag atcactgcct ctggccagta tggccagtgg gcccccaagc tggccaggct	3960
gcactactct ggcagcatca atgcctggag caccaaggag cccttcagct ggatcaagg	4020
ggacctgctg gcccccatga tcatccatgg catcaagacc cagggggcca ggcagaagtt	4080
cagcagcctg tacatcagcc agttcatcat catgtacagc ctggatggca agaagtggca	4140
gacctacagg ggcaacagca ctggcaccct gatggtgttc tttggcaatg tggacagctc	4200
tggcatcaag cacaacatct tcaaccccc catcattgcc agatacatca ggctgcaccc	4260
caccactac agcatcagga gcaccctgag gatggagctg atgggctgtg acctgaacag	4320
ctgcagcatg cccctgggca tggagagcaa ggccatctct gatgcccaga tcttgccag	4380
cagctacttc accaacaatgt ttgccacctg gagccccagc aaggccaggc tgcacctgca	4440
gggcaggagc aatgcctgga ggccccaggt caacaacccc aaggagtggc tgcaggtgga	4500
cttcagaag accatgaagg tgactggggt gaccaccag ggggtgaaga gcctgctgac	4560
cagcatgtat gtgaaggagt tcctgatcag cagcagccag gatggccacc agtggaccct	4620

sequencelisting

gttcttccag aatggcaagg tgaaggtgtt ccagggcaac caggacagct tcacccctgt	4680
ggtgaacagc ctggaccccc ccctgctgac cagatactg aggattcacc cccagagctg	4740
ggtgcaccag attgccctga ggatggaggt gctgggctgt gaggcccagg acctgtacta	4800
ataaaagatc tttattttca ttagatctgt gtgttggttt tttgtgtgag tgatggagtt	4860
ggccactccc tctctgcgcg ctgctcgct cactgaggcc gggcgaccaa aggtcgcccc	4920
acgcccgggc tttgcccggg cggcctcagt gagcgagcga gcgcgcagag agggagtggc	4980
caa	4983

<210> 4

<211> 4984

<212> DNA

<213> Adeno-Associated Virus

<400> 4

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga ctttggctcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tctactggcg actcagatcc cagccagtgg acttagcccc tgtttctctc	180
tccgataact ggggtgacct tggttaatat tcaccagcag cctccccctg tgcccctctg	240
gatccactgc ttaaatacgg acgaggacag ggccctgtct cctcagcttc aggcaccacc	300
actgacctgg gacagtgaat cgccaccatg cagattgagc tgagcacctg cttcttcctg	360
tgctgtgta gattctgctt tagtgccacc agaagatact acctgggtgc agtgggaactg	420
tcatgggact atatgcaaag tgatctcggt gagctgcctg tggacgcaag gtaaatgccc	480
taaaatgggc aaacattgca agcagcaaac accctaaaat gggcaaacat tgcaagcagc	540
aaacattcta atttttcctt tcttcacgca gatttcctcc tagagtgcca aaatcttttc	600
cattcaacac ctgagtcgtg tacaaaaaga ctctgtttgt agaattcacg gatcaccttt	660
tcaacatcgc taagcccagg cccccctgga tgggcctgct gggccccacc atccaggctg	720
aggtgtatga cactgtggtg atcacctga agaacatggc cagccaccct gtgagcctgc	780
atgctgtggg ggtgagctac tggaaggcct ctgagggggc tgagtatgat gaccagacca	840
gccagaggga gaaggaggat gacaagggtg tccctggggg cagccacacc tatgtgtggc	900
aggtgctgaa ggagaatggc cccatggcct ctgacccct gtgcctgacc tacagctacc	960

sequencelisting

tgagccatgt ggacctggtg aaggacctga actctggcct gattggggcc ctgctggtgt	1020
gcagggaggg cagcctggcc aaggagaaga cccagaccct gcacaagttc atcctgctgt	1080
ttgctgtgtt tgatgagggc aagagctggc actctgaaac caagaacagc ctgatgcagg	1140
acagggatgc tgcctctgcc agggcctggc ccaagatgca cactgtgaat ggctatgtga	1200
acaggagcct gcctggcctg attggctgcc acaggaagtc tgtgtactgg catgtgattg	1260
gcatgggcac caccctgag gtgcacagca tcttcctgga gggccacacc ttcctggtca	1320
ggaaccacag gcaggccagc ctggagatca gccccatcac cttcctgact gccagaccc	1380
tgctgatgga cctgggccag ttcctgctgt tctgccacat cagcagccac cagcatgatg	1440
gcatggaggc ctatgtgaag gtggacagct gccctgagga gcccagctg aggatgaaga	1500
acaatgagga ggctgaggac tatgatgatg acctgactga ctctgagatg gatgtggtga	1560
ggtttgatga tgacaacagc cccagcttca tccagatcag gtctgtggcc aagaagcacc	1620
ccaagacctg ggtgcactac attgctgctg aggaggagga ctgggactat gccccctgg	1680
tgctggcccc tgatgacagg agctacaaga gccagtacct gaacaatggc cccagagga	1740
ttggcaggaa gtacaagaag gtcaggttca tggcctacac tgatgaaacc ttcaagacca	1800
gggaggccat ccagcatgag tctggcatcc tgggccccct gctgtatggg gaggtggggg	1860
acaccctgct gatcatcttc aagaaccagg ccagcaggcc ctacaacatc taccctcatg	1920
gcatcactga tgtgaggccc ctgtacagca ggaggctgcc caagggggtg aagcacctga	1980
aggacttccc catcctgcct ggggagatct tcaagtacaa gtggactgtg actgtggagg	2040
atggccccac caagtctgac cccaggtgcc tgaccagata ctacagcagc tttgtgaaca	2100
tggagaggga cctggcctct ggcctgattg gccccctgct gatctgctac aaggagtctg	2160
tggaccagag gggcaaccag atcatgtctg acaagaggaa tgtgatcctg ttctctgtgt	2220
ttgatgagaa caggagctgg tacctgactg agaacatcca gaggttcctg cccaaccctg	2280
ctgggggtgca gctggaggac cctgagttcc aggccagcaa catcatgcac agcatcaatg	2340
gctatgtgtt tgacagcctg cagctgtctg tgtgcctgca tgagggtggcc tactggtaca	2400
tcctgagcat tggggcccag actgacttcc tgtctgtgtt cttctctggc tacaccttca	2460
agcacaagat ggtgtatgag gacaccctga ccctgttccc cttctctggg gagactgtgt	2520

sequencelisting

tcatgagcat	ggagaaccct	ggcctgtgga	ttctgggctg	ccacaactct	gacttcagga	2580
acaggggcat	gactgccctg	ctgaaagtct	ccagctgtga	caagaacact	ggggactact	2640
atgaggacag	ctatgaggac	atctctgcct	acctgctgag	caagaacaat	gccattgagc	2700
ccaggagctt	cagccagaac	ccccagtg	tgaagaggca	ccagagggag	atcaccagga	2760
ccaccctgca	gtctgaccag	gaggagattg	actatgatga	caccatctct	gtggagatga	2820
agaaggagga	ctttgacatc	tacgacgagg	acgagaacca	gagccccagg	agcttccaga	2880
agaagaccag	gcactacttc	attgctgctg	tggagaggct	gtgggactat	ggcatgagca	2940
gcagccccca	tgtgctgagg	aacagggccc	agtctggctc	tgtgccccag	ttcaagaagg	3000
tgggtgtcca	ggagttcact	gatggcagct	tcaccagcc	cctgtacaga	ggggagctga	3060
atgagcacct	gggcctgctg	ggcccctaca	tcagggtga	ggtggaggac	aacatcatgg	3120
tgaccttcag	gaaccaggcc	agcaggccct	acagcttcta	cagcagcctg	atcagctatg	3180
aggaggacca	gaggcagggg	gctgagccca	ggaagaactt	tgtgaagccc	aatgaaacca	3240
agacctactt	ctggaagggt	cagcaccaca	tggccccac	caaggatgag	tttgactgca	3300
aggcctgggc	ctacttctct	gatgtggacc	tggagaagga	tgtgcactct	ggcctgattg	3360
gccccctgct	ggtgtgccac	accaacaccc	tgaaccctgc	ccatggcagg	caggtgactg	3420
tgcaggagtt	tgccctgttc	ttcaccatct	ttgatgaaac	caagagctgg	tactttactg	3480
agaacatgga	gaggaactgc	agggccccct	gcaacatcca	gatggaggac	cccaccttca	3540
aggagaacta	caggttccat	gccatcaatg	gctacatcat	ggacaccctg	cctggcctgg	3600
tgatggccca	ggaccagagg	atcaggtggt	acctgctgag	catgggcagc	aatgagaaca	3660
tccacagcat	ccacttctct	ggccatgtgt	tcactgtgag	gaagaaggag	gagtacaaga	3720
tggccctgta	caacctgtac	cctgggggtgt	ttgagactgt	ggagatgctg	cccagcaagg	3780
ctggcatctg	gagggtggag	tgcttgattg	gggagcacct	gcatgctggc	atgagcacc	3840
tgttcctggt	gtacagcaac	aagtgccaga	ccccctggg	catggcctct	ggccacatca	3900
gggacttcca	gatcactgcc	tctggccagt	atggccagt	ggcccccaag	ctggccaggc	3960
tgcactactc	tggcagcatc	aatgcctgga	gcaccaagga	gcccttcagc	tggatcaagg	4020
tggacctgct	ggcccccatg	atcatccatg	gcatcaagac	ccagggggcc	aggcagaagt	4080

sequencelisting

tcagcagcct gtacatcagc cagttcatca tcatgtacag cctggatggc aagaagtggc	4140
agacctacag gggcaacagc actggcaccc tgatgggtgtt ctttggcaat gtggacagct	4200
ctggcatcaa gcacaacatc ttcaaccccc ccatcattgc cagatacatc aggctgcacc	4260
ccaccacta cagcatcagg agcaccctga ggatggagct gatgggctgt gacctgaaca	4320
gctgcagcat gcccctgggc atggagagca aggccatctc tgatgcccag atcactgcca	4380
gcagctactt caccaacatg tttgccacct ggagccccag caaggccagg ctgcacctgc	4440
agggcaggag caatgcctgg aggccccagg tcaacaaccc caaggagtgg ctgcaggtgg	4500
acttccagaa gaccatgaag gtgactgggg tgaccacca ggggggtgaag agcctgctga	4560
ccagcatgta tgtgaaggag ttcctgatca gcagcagcca ggatggccac cagtggaccc	4620
tgttcttcca gaatggcaag gtgaagggtgt tccagggcaa ccaggacagc ttcaccctg	4680
tggtgaacag cctggacccc cccctgctga ccagatacct gaggattcac cccagagct	4740
gggtgcacca gattgccctg aggatggagg tgctgggctg tgaggcccag gacctgtact	4800
aataaaagat ctttattttc attagatctg tgtgttggtt ttttgtgtga gtgatggagt	4860
tggccactcc ctctctgcgc gctcgcctgc tcactgaggc cgggcgacca aaggtcgccc	4920
gacgcccggg ctttgcccgg gcggcctcag tgagcgagcg agcgcgcaga gagggagtgg	4980
ccaa	4984

<210> 5
 <211> 4805
 <212> DNA
 <213> Adeno-Associated Virus

<400> 5 ttggccactc cctctctgcg cgctcgcctc ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga ctttgggtcg cccggcctca gtgagcgagc gagcgcgcag agagggagtg	120
gccaactcca tcactagggg ttcctgtttg ctgcttgcaa tgtttgccca ttttaggggtg	180
gacacaggac gctgtggttt ctgagccagg gggcgactca gatcccagcc agtggactta	240
gcccctgttt gtcctccga taactggggg gaccttggtt aatattcacc agcagcctcc	300
cccgttgccc ctctggatcc actgcttaaa tacggacgag gacagggcc tgtctcctca	360

sequencelisting

gcttcaggca ccaccactga cctgggacag tgaatcgcca ccatgcagat tgagctgagc	420
acctgcttct tcctgtgcct gctgaggttc tgcttctctg ccaccaggag atactacctg	480
ggggctgtgg agctgagctg ggactacatg cagtctgacc tgggggagct gcctgtggat	540
gccaggttcc cccccagagt gcccagagc ttccccttca acacctctgt ggtgtacaag	600
aagacctgt ttgtggagtt cactgaccac ctgttcaaca ttgccaagcc caggcccccc	660
tggatgggcc tgctgggccc caccatccag gctgagggtg atgacactgt ggtgatcacc	720
ctgaagaaca tggccagcca ccctgtgagc ctgcatgctg tgggggtgag ctactggaag	780
gcctctgagg gggctgagta tgatgaccag accagccaga gggagaagga ggatgacaag	840
gtgttccctg ggggcagcca cacctatgtg tggcagggtg tgaaggagaa tggccccatg	900
gcctctgacc ccctgtgcct gacctacagc tacctgagcc atgtggacct ggtgaaggac	960
ctgaactctg gcctgattgg ggccctgctg gtgtgcaggg agggcagcct ggccaaggag	1020
aagaccaga ccctgcacaa gttcatcctg ctgtttgctg tgtttgatga gggcaagagc	1080
tggcactctg aaaccaagaa cagcctgatg caggacaggg atgctgcctc tgccagggcc	1140
tggcccaaga tgcacactgt gaatggctat gtgaacagga gcctgcctgg cctgattggc	1200
tgccacagga agtctgtgta ctggcatgtg attggcatgg gcaccacccc tgaggtgcac	1260
agcatcttcc tggagggcca caccttctg gtcaggaacc acaggcaggc cagcctggag	1320
atcagcccca tcaccttct gactgcccag accctgctga tggacctggg ccagttcctg	1380
ctgttctgcc acatcagcag ccaccagcat gatggcatgg aggcctatgt gaaggtggac	1440
agctgccctg aggagcccca gctgaggatg aagaacaatg aggaggctga ggactatgat	1500
gatgacctga ctgactctga gatggatgtg gtgaggtttg atgatgacaa cagccccagc	1560
ttcatccaga tcaggtctgt ggccaagaag caccccaaga cctgggtgca ctacattgct	1620
gctgaggagg aggactggga ctatgcccc ctggtgctgg cccctgatga caggagctac	1680
aagagccagt acctgaacaa tggccccag aggattggca ggaagtacaa gaaggtcagg	1740
ttcatggcct acactgatga aaccttcaag accaggaggg ccatccagca tgagtctggc	1800
atcctgggcc ccctgctgta tggggagggtg ggggacaccc tgctgatcat cttcaagaac	1860
caggccagca ggccctacaa catctacccc catggcatca ctgatgtgag gccctgtac	1920

sequencelisting

agcaggaggc	tgcccaaggg	ggtgaagcac	ctgaaggact	tccccatcct	gcctggggag	1980
atcttcaagt	acaagtggac	tgtgactgtg	gaggatggcc	ccaccaagtc	tgaccccagg	2040
tgcttgacca	gatactacag	cagctttgtg	aacatggaga	gggacctggc	ctctggcctg	2100
attggcccc	tgctgatctg	ctacaaggag	tctgtggacc	agaggggcaa	ccagatcatg	2160
tctgacaaga	ggaatgtgat	cctgtttctt	gtgtttgatg	agaacaggag	ctggtacctg	2220
actgagaaca	tccagagggt	cctgccccaa	cctgctgggg	tgagctgga	ggaccctgag	2280
ttccaggcca	gcaacatcat	gcacagcatc	aatggctatg	tgtttgacag	cctgcagctg	2340
tctgtgtgcc	tgcatgaggt	ggcctactgg	tacatcctga	gcattggggc	ccagactgac	2400
ttcctgtctg	tgttcttctc	tggctacacc	ttcaagcaca	agatggtgta	tgaggacacc	2460
ctgaccctgt	tcccccttct	tggggagact	gtgttcatga	gcatggagaa	ccctggcctg	2520
tggattctgg	gctgccacaa	ctctgacttc	aggaacaggg	gcatgactgc	cctgctgaaa	2580
gtctccagct	gtgacaagaa	cactggggac	tactatgagg	acagctatga	ggacatctct	2640
gcctacctgc	tgagcaagaa	caatgccatt	gagcccagga	gcttccagaa	gaagaccagg	2700
cactacttca	ttgctgctgt	ggagaggctg	tgggactatg	gcatgagcag	cagcccccat	2760
gtgctgagga	acaggggcca	gtctggctct	gtgccccagt	tcaagaaggt	ggtgttccag	2820
gagttcactg	atggcagctt	cacccagccc	ctgtacagag	gggagctgaa	tgagcacctg	2880
ggcctgctgg	gcccctacat	cagggtgag	gtggaggaca	acatcatggt	gaccttcagg	2940
aaccaggcca	gcaggcccta	cagcttctac	agcagcctga	tcagctatga	ggaggaccag	3000
aggcaggggg	ctgagcccag	gaagaacttt	gtgaagccca	atgaaaccaa	gacctacttc	3060
tggaaggtgc	agcaccacat	ggccccacc	aaggatgagt	ttgactgcaa	ggcctgggcc	3120
tacttctctg	atgtggacct	ggagaaggat	gtgcactctg	gcctgattgg	ccccctgctg	3180
gtgtgccaca	ccaacaccct	gaaccctgcc	catggcaggc	aggtgactgt	gcaggagttt	3240
gccctgttct	tcaccatctt	tgatgaaacc	aagagctggg	acttactga	gaacatggag	3300
aggaactgca	gggccccctg	caacatccag	atggaggacc	ccaccttcaa	ggagaactac	3360
aggttccatg	ccatcaatgg	ctacatcatg	gacaccctgc	ctggcctggg	gatggcccag	3420
gaccagagga	tcaggtggta	cctgctgagc	atgggcagca	atgagaacat	ccacagcatc	3480

sequencelisting

cacttctctg gccatgtggt cactgtgagg aagaaggagg agtacaagat ggccctgtac	3540
aacctgtacc ctgggggtgtt tgagactgtg gagatgctgc ccagcaaggc tggcatctgg	3600
agggtggagt gcctgattgg ggagcacctg catgctggca tgagcaccct gttcctggtg	3660
tacagcaaca agtgccagac ccccctgggc atggcctctg gccacatcag ggacttccag	3720
atcactgcct ctggccagta tggccagtgg gcccacaagc tggccaggct gcactactct	3780
ggcagcatca atgcctggag caccaaggag cccttcagct ggatcaagggt ggacctgctg	3840
gccccatga tcatccatgg catcaagacc cagggggcca ggagaagtt cagcagcctg	3900
tacatcagcc agttcatcat catgtacagc ctggatggca agaagtggca gacctacagg	3960
ggcaacagca ctggcaccct gatggtgttc tttggcaatg tggacagctc tggcatcaag	4020
cacaacatct tcaaccccc catcattgcc agatacatca ggctgcaccc caccactac	4080
agcatcagga gcaccctgag gatggagctg atgggctgtg acctgaacag ctgcagcatg	4140
cccctgggca tggagagcaa ggccatctct gatgcccaga tcaactgccag cagctacttc	4200
accaacatgt ttgccacctg gagccccagc aaggccaggc tgcacctgca gggcaggagc	4260
aatgcctgga ggccccaggt caacaacccc aaggagtggc tgcaggtgga cttccagaag	4320
accatgaagg tgactggggt gaccaccag ggggtgaaga gcctgctgac cagcatgtat	4380
gtgaaggagt tcctgatcag cagcagccag gatggccacc agtggaccct gttcttccag	4440
aatggcaagg tgaaggtgtt ccagggcaac caggacagct tcaccctgt ggtgaacagc	4500
ctggaccccc ccctgctgac cagatacctg aggattcacc ccagagctg ggtgcaccag	4560
attgccctga ggatggaggt gctgggctgt gaggcccagg acctgtactg aaataaaaga	4620
tctttatattt cattagatct gtgtgttgggt tttttgtgtg aggaaccct agtgatggag	4680
ttggccactc cttctctgcg cgctcgctcg ctactgagg ccgggcgacc aaaggtcgcc	4740
cgacgcccgg gctttgcccg ggcggcctca gtgagcgagc gagcgcgag agagggagtg	4800
gccaa	4805

<210> 6

<211> 4934

<212> DNA

<213> Adeno-Associated Virus

sequencelisting

<400> 6

ttggccactc cctctctgcg cgctcgctcg ctcactgagg cgcgccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgtttg ctgcttgcaa tgtttgcca ttttaggggtg	180
gacacaggac gctgtggttt ctgagccagg gggcgactca gatcccagcc agtggactta	240
gcccctgttt gtcctccga taactgggggt gaccttggtt aatattcacc agcagcctcc	300
cccgttgccc ctctggatcc actgcttaaa tacggacgag gacagggccc tgtctcctca	360
gcttcaggca ccaccactga cctgggacag tgaatcgcca ccatgcagat tgagctgagc	420
acctgcttct tcctgtgcct gctgagattc tgctttagtg ccaccagaag atactacctg	480
ggtgcagtgg aactgtcatg ggactatatg caaagtgatc tcggtgagct gcctgtggac	540
gcaaggtaaa ggcatgtcct gtagggctctg atcggggcca ggattgtggg gatgtaagtc	600
tgcttgagg aaggtgcaga catcgggtta ggatggttgt gatgctattc tgactttttc	660
ctttcttcac gcagatttcc tcctagagtg caaaatctt ttccattcaa cacctcagtc	720
gtgtacaaaa agactctgtt tgtagaattc acggatcacc ttttcaacat cgctaagccc	780
aggccccct ggatgggcct gctgggcccc accatccagg ctgaggtgta tgacactgtg	840
tgatcacccc tgaagaacat ggccagccac cctgtgagcc tgcatgctgt gggggtgagc	900
tactggaagg cctctgaggg ggctgagtat gatgaccaga ccagccagag ggagaaggag	960
gatgacaagg tgttccctgg gggcagccac acctatgtgt ggcaggtgct gaaggagaat	1020
ggcccatgg cctctgacct cctgtgcctg acctacagct acctgagcca tgttgacctg	1080
gtgaaggacc tgaactctgg cctgattggg gccctgctgg tgtgcaggga gggcagcctg	1140
gccaaggaga agaccagac cctgcacaag ttcacctgc tgtttgctgt gtttgatgag	1200
ggcaagagct ggcactctga aaccaagaac agcctgatgc aggacaggga tgctgcctct	1260
gccagggcct ggccaagat gcacactgtg aatggctatg tgaacaggag cctgcctggc	1320
ctgattggct gccacaggaa gtctgtgtac tggcatgtga ttggcatggg caccaccct	1380
gaggtgcaca gcatcttcct ggagggccac accttcctgg tcaggaacca caggcaggcc	1440
agcctggaga tcagcccat caccttcctg actgcccaga ccctgctgat ggacctgggc	1500
cagttcctgc tgttctgcca catcagcagc caccagcatg atggcatgga ggcctatgtg	1560

sequencelisting

aaggtggaca gctgccctga ggagccccag ctgaggatga agaacaatga ggaggctgag	1620
gactatgatg atgacctgac tgactctgag atggatgtgg tgaggtttga tgatgacaac	1680
agccccagct tcatccagat caggtctgtg gccaagaagc accccaagac ctgggtgcac	1740
tacattgctg ctgaggagga ggactgggac tatgcccccc tgggtgctggc ccctgatgac	1800
aggagctaca agagccagta cctgaacaat ggcccccaga ggattggcag gaagtacaag	1860
aaggtcaggt tcatggccta cactgatgaa accttcaaga ccaggagggc catccagcat	1920
gagtctggca tcctggggcc cctgctgtat ggggaggtgg gggacaccct gctgatcatc	1980
ttcaagaacc aggccagcag gccctacaac atctaccccc atggcatcac tgatgtgagg	2040
cccctgtaca gcaggaggct gcccaagggg gtgaagcacc tgaaggactt ccccatcctg	2100
cctggggaga tcttcaagta caagtggact gtgactgtgg aggatggccc caccaagtct	2160
gaccccaggt gcctgaccag atactacagc agctttgtga acatggagag ggacctggcc	2220
tctggcctga ttggccccct gctgatctgc tacaaggagt ctgtggacca gaggggcaac	2280
cagatcatgt ctgacaagag gaatgtgatc ctgttctctg tgtttgatga gaacaggagc	2340
tggtacctga ctgagaacat ccagaggttc ctgccaacc ctgctggggg gcagctggag	2400
gaccctgagt tccaggccag caacatcatg cacagcatca atggctatgt gtttgacagc	2460
ctgcagctgt ctgtgtgcct gcatgaggtg gcctactggt acatcctgag cattggggcc	2520
cagactgact tcctgtctgt gttcttctct ggctacacct tcaagcaca gatggtgtat	2580
gaggacacc tgacctgtt ccccttctct ggggagactg tgttcatgag catggagaac	2640
cctggcctgt ggattctggg ctgccacaac tctgacttca ggaacagggg catgactgcc	2700
ctgctgaaag tctccagctg tgacaagaac actggggact actatgagga cagctatgag	2760
gacatctctg cctacctgct gagcaagaac aatgccattg agcccaggag cttccagaag	2820
aagaccaggc actacttcat tgctgctgtg gagaggctgt gggactatgg catgagcagc	2880
agcccccatg tgctgaggaa cagggccag tctggctctg tgccccagtt caagaagggtg	2940
gtgttccagg agttcactga tggcagcttc acccagcccc tgtacagagg ggagctgaat	3000
gagcacctgg gcctgctggg cccctacatc agggctgagg tggaggacaa catcatggtg	3060
accttcagga accaggccag caggccctac agcttctaca gcagcctgat cagctatgag	3120

sequencelisting

gaggaccaga ggcagggggc tgagcccagg aagaactttg tgaagcccaa tgaaaccaag	3180
acctacttct ggaaggtgca gcaccacatg gccccacca aggatgagtt tgactgcaag	3240
gcctgggcct acttctctga tgtggacctg gagaaggatg tgcactctgg cctgattggc	3300
cccctgctgg tgtgccacac caacaccctg aaccctgccc atggcaggca ggtgactgtg	3360
caggagtttg ccctgttctt caccatcttt gatgaaacca agagctggta cttcactgag	3420
aacatggaga ggaactgcag ggccccctgc aacatccaga tggaggaccc caccttcaag	3480
gagaactaca ggttccatgc catcaatggc tacatcatgg acaccctgcc tggcctggtg	3540
atggcccagg accagaggat caggtggtac ctgctgagca tgggcagcaa tgagaacatc	3600
cacagcatcc acttctctgg ccatgtgttc actgtgagga agaaggagga gtacaagatg	3660
gccctgtaca acctgtaccc tgggggtgtt gagactgtgg agatgctgcc cagcaaggct	3720
ggcatctgga ggggtggagt cctgattggg gagcacctgc atgctggcat gagcacctg	3780
ttcctggtgt acagcaaca gtgccagacc cccctgggca tggcctctgg ccacatcagg	3840
gacttccaga tctactgcctc tggccagtat ggccagtggg cccccaagct ggccaggctg	3900
cactactctg gcagcatcaa tgcctggagc accaaggagc ccttcagctg gatcaagggtg	3960
gacctgctgg ccccatgat catccatggc atcaagaccc agggggccag gcagaagttc	4020
agcagcctgt acatcagcca gttcatcatc atgtacagcc tggatggcaa gaagtggcag	4080
acctacaggg gcaacagcac tggcaccctg atggtgttct ttggcaatgt ggacagctct	4140
ggcatcaagc acaacatctt caaccccc atcattgcca gatacatcag gctgcacccc	4200
accactaca gcatcaggag caccctgagg atggagctga tgggctgtga cctgaacagc	4260
tgcagcatgc ccctgggcat ggagagcaag gccatctctg atgccagat cactgccagc	4320
agctacttca ccaacatgtt tgccacctgg agccccagca aggccaggct gcacctgcag	4380
ggcaggagca atgcctggag gccccaggtc aacaaccca aggagtggct gcaggtggac	4440
ttccagaaga ccatgaaggt gactgggggtg accaccagg ggggtgaagag cctgctgacc	4500
agcatgtatg tgaaggagtt cctgatcagc agcagccagg atggccacca gtggaccctg	4560
ttcttccaga atggcaaggt gaaggtgttc cagggcaacc aggacagctt caccctgtg	4620
gtgaacagcc tggaccccc cctgctgacc agatacctga ggattcacc ccagagctgg	4680

sequencelisting

gtgcaccaga ttgccctgag gatggaggtg ctgggctgtg aggcccagga cctgtactga	4740
aataaaagat ctttatatttc attagatctg tgtgttggtt ttttgtgtga ggaacccta	4800
gtgatggagt tggccactcc ctctctgcgc gctcgctcgc tcactgaggc cgggcgacca	4860
aaggtcgccc gacgcccggg ctttgcccgg gcggcctcag tgagcgagcg agcgcgcaga	4920
gagggagtgg ccaa	4934

<210> 7
 <211> 4934
 <212> DNA
 <213> Adeno-Associated Virus

<400> 7	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttcctgtttg ctgcttgcaa tgtttgcca ttttaggggtg	180
gacacaggac gctgtggttt ctgagccagg gggcgactca gatcccagcc agtggactta	240
gcccctgttt gtcctccga taactggggg gaccttggtt aatattcacc agcagcctcc	300
cccgttgccc ctctggatcc actgcttaaa tacggacgag gacagggccc tgtctcctca	360
gcttcaggca ccaccactga cctgggacag tgaatcgcca ccatgcagat tgagctgagc	420
acctgcttct tcctgtgcct gctgagattc tgctttagt	480
ccaccagaag atactacctg	
ggtgcagtgg aactgtcatg ggactatatg caaagtgatc tcggtgagct gcctgtggac	540
gcaaggtaaa ggctgtttgc tgcttgcaat gtttgcccat tttagggggg gatgtaagtc	600
tgcttgagg aaggtgcaga catcgggtta ggatggttgt gatgctattc tgactttttc	660
ctttcttcac gcagatttcc tcctagagtg caaaaatctt ttccattcaa cacctcagtc	720
gtgtacaaaa agactctgtt tgtagaattc acggatcacc ttttcaacat cgctaagccc	780
aggccccct ggatgggcct gctgggcccc accatccagg ctgaggtgta tgacactgtg	840
gtgatcacc tgaagaacat ggccagccac cctgtgagcc tgcattgctgt gggggtgagc	900
tactggaagg cctctgaggg ggctgagtat gatgaccaga ccagccagag ggagaaggag	960
gatgacaagg tgttccctgg gggcagccac acctatgtgt ggcaggtgct gaaggagaat	1020

sequencelisting

ggcccatgg cctctgaccc cctgtgcctg acctacagct acctgagcca tgtggacctg	1080
gtgaaggacc tgaactctgg cctgattggg gccctgctgg tgtgcaggga gggcagcctg	1140
gccaaggaga agaccagac cctgcacaag ttcacctctgc tgtttgctgt gtttgatgag	1200
ggcaagagct ggcactctga aaccaagaac agcctgatgc aggacaggga tgctgcctct	1260
gccagggcct ggccaagat gcacactgtg aatggctatg tgaacaggag cctgcctggc	1320
ctgattggct gccacaggaa gtctgtgtac tggcatgtga ttggcatggg caccaccct	1380
gaggtgcaca gcatcttctt ggagggccac accttctctg tcaggaacca caggcaggcc	1440
agcctggaga tcagcccat caccttctctg actgcccaga ccctgctgat ggacctgggc	1500
cagttcctgc tgttctgcca catcagcagc caccagcatg atggcatgga ggcctatgtg	1560
aaggtggaca gctgccctga ggagccccag ctgaggatga agaacaatga ggaggctgag	1620
gactatgatg atgacctgac tgactctgag atggatgtgg tgaggtttga tgatgacaac	1680
agccccagct tcatccagat caggtctgtg gccagaagc accccaagac ctgggtgcac	1740
tacattgctg ctgaggagga ggactgggac tatgcccccc tgggtgctggc ccctgatgac	1800
aggagctaca agagccagta cctgaacaat ggcccccaga ggattggcag gaagtacaag	1860
aaggtcaggt tcatggccta cactgatgaa accttcaaga ccaggagggc catccagcat	1920
gagtctggca tcctggggcc cctgctgtat ggggaggtgg gggacaccct gctgatcatc	1980
ttcaagaacc aggccagcag gccctacaac atctaccccc atggcatcac tgatgtgagg	2040
cccctgtaca gcaggaggct gccaagggg gtgaagcacc tgaaggactt ccccatcctg	2100
cctggggaga tcttcaagta caagtggact gtgactgtgg aggatggccc caccaagtct	2160
gaccccaggt gcctgaccag atactacagc agctttgtga acatggagag ggacctggcc	2220
tctggcctga ttggccccct gctgatctgc tacaaggagt ctgtggacca gaggggcaac	2280
cagatcatgt ctgacaagag gaatgtgatc ctgttctctg tgtttgatga gaacaggagc	2340
tggtacctga ctgagaacat ccagaggttc ctgccaacc ctgctggggt gcagctggag	2400
gacctgagt tccaggccag caacatcatg cacagcatca atggctatgt gtttgacagc	2460
ctgcagctgt ctgtgtgcct gcatgagggt gcctactggt acatcctgag cattggggcc	2520
cagactgact tcctgtctgt gttcttctct ggctacacct tcaagcaca gatggtgtat	2580

sequencelisting						
gaggacaccc	tgaccctgtt	ccccttctct	ggggagactg	tgttcatgag	catggagaac	2640
cctggcctgt	ggattctggg	ctgccacaac	tctgacttca	ggaacagggg	catgactgcc	2700
ctgctgaaag	tctccagctg	tgacaagaac	actggggact	actatgagga	cagctatgag	2760
gacatctctg	cctacctgct	gagcaagaac	aatgccattg	agcccaggag	cttccagaag	2820
aagaccaggc	actacttcat	tgctgctgtg	gagaggctgt	gggactatgg	catgagcagc	2880
agcccccattg	tgctgaggaa	cagggcccag	tctggctctg	tgccccagtt	caagaagggtg	2940
gtgttccagg	agttcactga	tggcagcttc	accagcccc	tgtacagagg	ggagctgaat	3000
gagcacctgg	gcctgctggg	cccctacatc	agggctgagg	tggaggacaa	catcatgggtg	3060
accttcagga	accaggccag	caggccctac	agcttctaca	gcagcctgat	cagctatgag	3120
gaggaccaga	ggcagggggc	tgagcccagg	aagaactttg	tgaagcccaa	tgaaaccaag	3180
acctacttct	ggaagggtga	gcaccacatg	gccccacca	aggatgagtt	tgactgcaag	3240
gcctgggcct	acttctctga	tgtggacctg	gagaaggatg	tgcaactctgg	cctgattggc	3300
cccctgctgg	tgtgccacac	caacaccctg	aaccctgccc	atggcaggca	ggtgactgtg	3360
caggagtttg	ccctgttctt	caccatcttt	gatgaaacca	agagctggta	cttcactgag	3420
aacatggaga	ggaactgcag	ggccccctgc	aacatccaga	tggaggaccc	caccttcaag	3480
gagaactaca	ggttccatgc	catcaatggc	tacatcatgg	acaccctgcc	tggcctgggtg	3540
atggcccagg	accagaggat	caggtggtac	ctgctgagca	tgggcagcaa	tgagaacatc	3600
cacagcatcc	acttctctgg	ccatgtgttc	actgtgagga	agaaggagga	gtacaagatg	3660
gccctgtaca	acctgtaccc	tgggggtgtt	gagactgtgg	agatgctgcc	cagcaaggct	3720
ggcatctgga	gggtggagtg	cctgattggg	gagcacctgc	atgctggcat	gagcacctg	3780
ttcctgggtg	acagcaacaa	gtgccagacc	cccctgggca	tggcctctgg	ccacatcagg	3840
gacttccaga	tactgcctc	tggccagtat	ggccagtggg	cccccaagct	ggccaggctg	3900
cactactctg	gcagcatcaa	tgccctggagc	accaaggagc	ccttcagctg	gatcaagggtg	3960
gacctgctgg	cccccatgat	catccatggc	atcaagaccc	agggggccag	gcagaagttc	4020
agcagcctgt	acatcagcca	gttcatcatc	atgtacagcc	tggatggcaa	gaagtggcag	4080
acctacaggg	gcaacagcac	tggcaccctg	atggtgttct	ttggcaatgt	ggacagctct	4140

sequencelisting

ggcatcaagc acaacatctt caaccccccc atcattgcc aatacatcag gctgcacccc	4200
accactaca gcatcaggag caccctgagg atggagctga tgggctgtga cctgaacagc	4260
tgacgcatgc ccctgggcat ggagagcaag gccatctctg atgccagat cactgccagc	4320
agctacttca ccaacatggt tgccacctgg agccccagca aggccaggct gcacctgcag	4380
ggcaggagca atgcctggag gccccaggtc aacaacccca aggagtggct gcaggtggac	4440
ttccagaaga ccatgaaggt gactgggggtg accaccaggg gggtgaagag cctgctgacc	4500
agcatgtatg tgaaggagtt cctgatcagc agcagccagg atggccacca gtggaccctg	4560
ttcttccaga atggcaaggt gaaggtgttc cagggaacc aggcagctt caccctgtg	4620
gtgaacagcc tggaccccc cctgctgacc agatacctga ggattcacc ccagagctgg	4680
gtgcaccaga ttgccctgag gatggaggtg ctgggctgtg aggccagga cctgtactga	4740
aataaaagat ctttattttc attagatctg tgtgttggtt ttttgtgtga ggaacccta	4800
gtgatggagt tggccactcc ctctctgctg gctcgtctgc tcactgaggc cgggcgacca	4860
aaggtcgccc gacggcggg ctttgcccgg gcggcctcag tgagcgagcg agcgcgaga	4920
gagggagtgg ccaa	4934

<210> 8

<211> 4934

<212> DNA

<213> Adeno-Associated Virus

<400> 8

ttggccactc cctctctgctg cgctcgtctg ctactgagg ccggccgggc aaagcccggg	60
cgctgggcca ctttggctg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttctgtttg ctgcttgcaa tgtttgcca ttttagggtg	180
gacacaggac gctgtggttt ctgagccagg gggcgactca gatccagcc agtggactta	240
gcccctgttt gtcctccga taactggggt gaccttggtt aatattcacc agcagcctcc	300
cccgttgccc ctctggatcc actgcttaa tacggacgag gacagggccc tgtctctca	360
gcttcaggca ccaccactga cctgggacag tgaatcgcca ccatgcagat tgagctgagc	420
acctgcttct tcctgtgcct gctgagattc tgcttttagtg ccaccagaag atactacctg	480
ggtgcagtgg aactgtcatg ggactatatg caaagtgatc tcggtgagct gcctgtggac	540

sequencelisting

gcaaggtaaa ggcattgtcct gtaggggtctg atcggggcca ggattgtggg gatgtaagtc	600
tgcttgaggg aagccctaaa atggggcaaac attgcaagca gcaaacattc tgactttttc	660
ctttcttcac gcagatttcc tcctagagtg ccaaaatctt ttccattcaa cacctcagtc	720
gtgtacaaaa agactctgtt tgtagaattc acggatcacc ttttcaacat cgctaagccc	780
aggccccct ggatgggcct gctgggcccc accatccagg ctgagggtga tgacactgtg	840
gtgatcacc tgaagaacat ggccagccac cctgtgagcc tgcatgctgt gggggtgagc	900
tactggaagg cctctgaggg ggctgagtat gatgaccaga ccagccagag ggagaaggag	960
gatgacaagg tgttccctgg gggcagccac acctatgtgt ggaggtgct gaaggagaat	1020
ggccccatgg cctctgacct cctgtgcctg acctacagct acctgagcca tgtggacctg	1080
gtgaaggacc tgaactctgg cctgattggg gccctgctgg tgtgcaggga gggcagcctg	1140
gccaaggaga agaccagac cctgcacaag ttcattcctgc tgtttgctgt gtttgatgag	1200
ggcaagagct ggactctga aaccaagaac agcctgatgc aggacaggga tgctgcctct	1260
gccagggcct ggccaagat gcacactgtg aatggctatg tgaacaggag cctgcctggc	1320
ctgattggct gccacaggaa gtctgtgtac tggcatgtga ttggcatggg caccaccct	1380
gaggtgcaca gcatcttcct ggagggccac accttcctgg tcaggaacca caggcaggcc	1440
agcctggaga tcagccccat caccttcctg actgcccaga ccctgctgat ggacctgggc	1500
cagttcctgc tgttctgcca catcagcagc caccagcatg atggcatgga ggcctatgtg	1560
aaggtggaca gctgccctga ggagccccag ctgaggatga agaacaatga ggaggctgag	1620
gactatgatg atgacctgac tgactctgag atggatgtgg tgaggtttga tgatgacaac	1680
agccccagct tcatccagat cagggtctgtg gccagaagc accccaagac ctgggtgcac	1740
tacattgctg ctgaggagga ggactgggac tatgcccccc tgggtgctggc ccctgatgac	1800
aggagctaca agagccagta cctgaacaat ggccccaga ggattggcag gaagtacaag	1860
aaggtcaggt tcatggccta cactgatgaa accttcaaga ccaggagggc catccagcat	1920
gagtctggca tcctgggccc cctgctgtat ggggaggtgg gggacaccct gctgatcatc	1980
ttcaagaacc aggccagcag gccctacaac atctaccccc atggcatcac tgatgtgagg	2040
cccctgtaca gcaggaggct gcccaagggg gtgaagcacc tgaaggactt ccccatcctg	2100

sequencelisting

cctggggaga	tcttcaagta	caagtggact	gtgactgtgg	aggatggccc	caccaagtct	2160
gaccccaggt	gcctgaccag	atactacagc	agctttgtga	acatggagag	ggacctggcc	2220
tctggcctga	ttggccccct	gctgatctgc	tacaaggagt	ctgtggacca	gaggggcaac	2280
cagatcatgt	ctgacaagag	gaatgtgatc	ctgttctctg	tgtttgatga	gaacaggagc	2340
tggtacctga	ctgagaacat	ccagaggttc	ctgcccacc	ctgctggggt	gcagctggag	2400
gacctgagt	tccaggccag	caacatcatg	cacagcatca	atggctatgt	gtttgacagc	2460
ctgcagctgt	ctgtgtgcct	gcatgaggtg	gcctactgg	acatcctgag	cattggggcc	2520
cagactgact	tcctgtctgt	gttcttctct	ggctacacct	tcaagcaca	gatggtgtat	2580
gaggacacc	tgacctgtt	ccccttctct	ggggagactg	tgttcatgag	catggagaac	2640
cctggcctgt	ggattctggg	ctgccacaac	tctgacttca	ggaacagggg	catgactgcc	2700
ctgctgaaag	tctccagctg	tgacaagaac	actggggact	actatgagga	cagctatgag	2760
gacatctctg	cctacctgct	gagcaagaac	aatgccattg	agcccaggag	cttccagaag	2820
aagaccaggc	actacttcat	tgctgctgtg	gagaggctgt	gggactatgg	catgagcagc	2880
agcccccattg	tgctgaggaa	cagggccag	tctggctctg	tgccccagtt	caagaagggtg	2940
gtgttccagg	agttcactga	tggcagcttc	accagcccc	tgtacagagg	ggagctgaat	3000
gagcacctgg	gcctgctggg	cccctacatc	agggtgagg	tggaggacaa	catcatgggtg	3060
accttcagga	accaggccag	caggccctac	agcttctaca	gcagcctgat	cagctatgag	3120
gaggaccaga	ggcagggggc	tgagcccagg	aagaactttg	tgaagcccaa	tgaaaccaag	3180
acctacttct	ggaagggtgca	gcaccacatg	gccccacca	aggatgagtt	tgactgcaag	3240
gcctgggcct	acttctctga	tgtggacctg	gagaaggatg	tgactctgg	cctgattggc	3300
cccctgctgg	tgtgccacac	caacaccctg	aaccctgccc	atggcaggca	ggtgactgtg	3360
caggagtttg	ccctgttctt	caccatcttt	gatgaaacca	agagctggta	cttactgag	3420
aacatggaga	ggaactgcag	ggccccctgc	aacatccaga	tggaggaccc	caccttcaag	3480
gagaactaca	ggttccatgc	catcaatggc	tacatcatgg	acaccctgcc	tggcctgggtg	3540
atggcccagg	accagaggat	caggtggtac	ctgctgagca	tgggcagcaa	tgagaacatc	3600
cacagcatcc	acttctctgg	ccatgtgttc	actgtgagga	agaaggagga	gtacaagatg	3660

sequencelisting

```

gccctgtaca acctgtaccc tgggggtgttt gagactgtgg agatgctgcc cagcaaggct 3720
ggcatctgga ggggtggagt cctgattggg gagcacctgc atgctggcat gagcaccctg 3780
ttcctgggtgt acagcaacaa gtgccagacc cccctgggca tggcctcttg ccacatcagg 3840
gacttccaga tctactgcctc tggccagtat ggccagtggg cccccaagct ggccaggctg 3900
cactactctg gcagcatcaa tgcctggagc accaaggagc ccttcagctg gatcaaggctg 3960
gacctgctgg ccccatgat catccatggc atcaagaccc agggggccag gcagaagttc 4020
agcagcctgt acatcagcca gttcatcatc atgtacagcc tggatggcaa gaagtggcag 4080
acctacaggg gcaacagcac tggcaccctg atgggtgttct ttggcaatgt ggacagctct 4140
ggcatcaagc acaacatctt caaccccccc atcattgcc a gatacatcag gctgcacccc 4200
accactaca gcatcaggag caccctgagg atggagctga tgggctgtga cctgaacagc 4260
tgcatcatgc ccctgggcat ggagagcaag gccatctctg atgccagat cactgccagc 4320
agctacttca ccaacatgtt tgccacctgg agccccagca aggccaggct gcacctgcag 4380
ggcaggagca atgcctggag gccccaggtc aacaacccca aggagtggct gcaggtggac 4440
ttccagaaga ccatgaaggt gactgggggtg accaccagg ggggtgaagag cctgctgacc 4500
agcatgtatg tgaaggagtt cctgatcagc agcagccagg atggccacca gtggaccctg 4560
ttcttccaga atggcaaggt gaaggtgttc cagggcaacc aggacagctt caccctgtg 4620
gtgaacagcc tggaccccc cctgctgacc agatacctga ggattcacc cagagctgg 4680
gtgcaccaga ttgccctgag gatggaggtg ctgggctgtg agggccagga cctgtactga 4740
aataaaagat ctttattttt attagatctg tgtgtttggtt ttttgtgtga ggaacccta 4800
gtgatggagt tggccactcc ctctctgcgc gctcgctcgc tctactgaggc cgggcgacca 4860
aaggtcgccc gacgcccggg ctttgcccgg gcggcctcag tgagcgagcg agcgcgcaga 4920
gagggagtgg ccaa 4934

```

<210> 9

<211> 5511

<212> DNA

<213> Adeno-Associated Virus 2

<400> 9

sequencelisting			
ttggccactc	cctctctgcg	cgctcgctcg	ctcactgagg cgcgccgggc aaagcccggg 60
cgtcggggcga	ccttttggtcg	cccggcctca	gtgagcgagc gagcgcgag agagggagtg 120
gccaactcca	tcactagggg	ttcctgcggc	cgcacgcgtg ttttcgaccc ctctcacact 180
acctaaacca	cgccaggaca	acctctgctc	ctctccaccg aaattccaag gggtcgagtg 240
gatgttggag	gtggcatggg	cccagagagg	tctctgacct ctgccccagc tccaaggtca 300
gcaggcaggg	agggctgtgt	gtttgctgtt	tgctgcttgc aatgtttgcc catTTTTaggg 360
acatgagtag	gctgaagttt	gttcagtgtg	gacttcagag gcagcacaca aacagctgct 420
ggaggatggg	aactgagggg	ttggaagggg	gcagggtgag ccagaaaact cctgtgtgcc 480
tctgagcctg	cagacgcgaa	acgtcgactg	gacacaggac gctgtggttt ctgagccagg 540
gggcgactca	gatcccagcc	agtggactta	gcccctgttt gctcctccga taactgggggt 600
gaccttggtt	aatattcacc	agcagcctcc	cccgttgccc ctctggatcc actgcttaaa 660
tacggacgag	gacagggccc	tgtctcctca	gcttcaggca ccaccactga cctgggacag 720
tgaatcgtaa	gtactagcag	ctacaatcca	gctaccattc tgcttttatt ttatggttgg 780
gataaggctg	gattattctg	agtccaagct	aggccctttt gctaatactg ttcatacctc 840
ttatcttcct	cccacagctc	ctgggcaacg	tgctggctctg tgtgctggcc catcactttg 900
gcaaagaatt	gcgatcgcca	ccatgcagat	tgagctgagc acctgcttct tcctgtgcct 960
gctgagggtc	tgcttctctg	ccaccaggag	atactacctg ggggctgtgg agctgagctg 1020
ggactacatg	cagtctgacc	tgggggagct	gcctgtggat gccaggttcc ccccagagt 1080
gccaagagc	ttccccttca	acacctctgt	ggtgtacaag aagaccctgt ttgtggagtt 1140
cactgaccac	ctgttcaaca	ttgccaagcc	caggcccccc tggatgggcc tgctgggccc 1200
caccatccag	gctgagggtg	atgacactgt	ggtgatcacc ctgaagaaca tggccagcca 1260
ccctgtgagc	ctgcatgctg	tgggggtgag	ctactggaag gcctctgagg gggctgagta 1320
tgatgaccag	accagccaga	gggagaagga	ggatgacaag gtgttccctg ggggcagcca 1380
cacctatgtg	tggcaggtgc	tgaaggagaa	tggcccatg gcctctgacc ccctgtgcct 1440
gacctacagc	tacctgagcc	atgtggacct	ggtgaaggac ctgaactctg gcctgattgg 1500
ggccctgctg	gtgtgcaggg	agggcagcct	ggccaaggag aagaccaga ccctgcacaa 1560

sequencelisting

gttcatcctg ctgtttgctg tgtttgatga gggcaagagc tggcactctg aaaccaagaa	1620
cagcctgatg caggacaggg atgctgcctc tgccagggcc tggcccaaga tgcacactgt	1680
gaatggctat gtgaacagga gcctgcctgg cctgattggc tgccacagga agtctgtgta	1740
ctggcatgtg attggcatgg gcaccacccc tgaggtgcac agcatcttcc tggagggcca	1800
caccttcctg gtcaggaacc acaggcaggc cagcctggag atcagcccca tcaccttcct	1860
gactgcccag accctgctga tggacctggg ccagttcctg ctgttctgcc acatcagcag	1920
ccaccagcat gatggcatgg aggcctatgt gaaggtggac agctgccctg aggagcccca	1980
gctgaggatg aagaacaatg aggaggctga ggactatgat gatgacctga ctgactctga	2040
gatggatgtg gtgaggtttg atgatgaaa cagccccagc ttcatccaga tcaggctctgt	2100
ggccaagaag caccccaaga cctgggtgca ctacattgct gctgaggagg aggactggga	2160
ctatgcccc ctggtgctgg cccctgatga caggagctac aagagccagt acctgaacaa	2220
tggccccag aggattggca ggaagtacaa gaaggtcagg ttcatggcct aactgatga	2280
aaccttcaag accagggagg ccatccagca tgagtctggc atcctgggcc ccctgctgta	2340
tggggagggtg ggggacaccc tgctgatcat cttcaagaac caggccagca ggccctacaa	2400
catctacccc catggcatca ctgatgtgag gcccctgtac agcaggaggc tgcccaaggg	2460
ggtgaagcac ctgaaggact tccccatcct gcctggggag atcttcaagt acaagtggac	2520
tgtgactgtg gaggatggcc ccaccaagtc tgaccccagg tgcctgacca gatactacag	2580
cagctttgtg aacatggaga gggacctggc ctctggcctg attggcccc tgctgatctg	2640
ctacaaggag tctgtggacc agaggggcaa ccagatcatg tctgacaaga ggaatgtgat	2700
cctgttctct gtgtttgatg agaacaggag ctggtacctg actgagaaca tccagaggtt	2760
cctgccaac cctgctgggg tgacagctgga ggaccctgag ttccaggcca gcaacatcat	2820
gcacagcatc aatggctatg tgtttgacag cctgcagctg tctgtgtgcc tgcattgagg	2880
ggcctactgg tacatcctga gcattggggc ccagactgac ttctgtctg tgttcttctc	2940
tggctacacc ttcaagcaca agatggtgta tgaggacacc ctgaccctgt tccccttctc	3000
tggggagact gtgttcatga gcatggagaa ccctggcctg tggattctgg gctgccacaa	3060
ctctgacttc aggaacaggg gcatgactgc cctgctgaaa gtctccagct gtgacaagaa	3120

sequencelisting

cactggggac tactatgagg acagctatga ggacatctct gcctacctgc tgagcaagaa	3180
caatgccatt gagcccagga gcttcagcca gaacccccca gtgctgaaga ggcaccagag	3240
ggagatcacc aggaccaccc tgcagtctga ccaggaggag attgactatg atgacaccat	3300
ctctgtggag atgaagaagg aggactttga catctacgac gaggacgaga accagagccc	3360
caggagcttc cagaagaaga ccaggcacta cttcattgct gctgtggaga ggctgtggga	3420
ctatggcatg agcagcagcc cccatgtgct gaggaacagg gccagctctg gctctgtgcc	3480
ccagttcaag aaggtggtgt tccaggagtt cactgatggc agcttcaccc agcccctgta	3540
cagaggggag ctgaatgagc acctgggcct gctgggcccc tacatcaggg ctgaggtgga	3600
ggacaacatc atggtgacct tcaggaacca ggccagcagg ccctacagct tctacagcag	3660
cctgatcagc tatgaggagg accagaggca gggggctgag ccaggaaga actttgtgaa	3720
gccaatgaa accaagacct acttctggaa ggtgcagcac cacatggccc ccaccaagga	3780
tgagtttgac tgcaaggcct gggcctactt ctctgatgtg gacctggaga aggatgtgca	3840
ctctggcctg attggcccc tgctggtgtg ccacaccaac accctgaacc ctgcccattg	3900
caggcaggtg actgtgcagg agtttgcct gttcttcacc atctttgatg aaaccaagag	3960
ctggtacttc actgagaaca tggagaggaa ctgcagggcc ccctgcaaca tccagatgga	4020
ggacccccacc ttcaaggaga actacagggt ccatgccatc aatggctaca tcatggacac	4080
cctgcctggc ctggtgatgg ccaggacca gaggatcagg tggctacctgc tgagcatggg	4140
cagcaatgag aacatccaca gcatccactt ctctggccat gtgttcactg tgaggaagaa	4200
ggaggagtac aagatggccc tgtacaacct gtaccctggg gtgtttgaga ctgtggagat	4260
gctgcccagc aaggctggca tctggagggt ggagtgcctg attggggagc acctgcatgc	4320
tggcatgagc accctgttcc tgggtgtacag caacaagtgc cagaccccc tgggcatggc	4380
ctctggccac atcagggact tccagatcac tgcctctggc cagtatggcc agtgggcccc	4440
caagctggcc aggctgcact actctggcag catcaatgcc tggagcacca aggagccctt	4500
cagctggatc aaggtggacc tgctggcccc catgatcatc catggcatca agaccaggg	4560
ggccaggcag aagttcagca gcctgtacat cagccagttc atcatcatgt acagcctgga	4620
tggcaagaag tggcagacct acaggggcaa cagcactggc accctgatgg tgttctttgg	4680

sequencelisting

caatgtggac agctctggca tcaagcacia catcttcaac ccccccata ttgccagata	4740
catcaggctg caccacaccc actacagcat caggagcacc ctgaggatgg agctgatggg	4800
ctgtgacctg aacagctgca gcatgcccct gggcatggag agcaaggcca tctctgatgc	4860
ccagatcact gccagcagct acttcaccaa catgtttgcc acctggagcc ccagcaaggc	4920
caggctgcac ctgcagggca ggagcaatgc ctggaggccc caggtcaaca accccaagga	4980
gtggctgcag gtggacttcc agaagacat gaaggtgact ggggtgacca cccagggggt	5040
gaagagcctg ctgaccagca tgtatgtgaa ggagttcctg atcagcagca gccaggatgg	5100
ccaccagtgg accctgttct tccagaatgg caaggtgaag gtgttccagg gcaaccagga	5160
cagcttcacc cctgtggtga acagcctgga cccccctg ctgaccagat acctgaggat	5220
tcacccccag agctgggtgc accagattgc cctgaggatg gaggtgctgg gctgtgaggc	5280
ccaggacctg tactgacctc gaggaataaa ggaaatttat tttcattgca atagtgtgtt	5340
ggttttttgt gtcacgtggc ggccgcagga acccctagt atggagttgg ccaactccctc	5400
tctgcgcgct cgctcgctca ctgaggccgg gcgaccaaag gtcgcccagc gcccgggctt	5460
tgcccgggcg gcctcagtga gcgagcgagc gcgcagagag ggagtggcca a	5511

<210> 10

<211> 5688

<212> DNA

<213> Adeno-Associated Virus 2

<400> 10

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cttttgtcg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttctgcggc cgcacgcgtg ttttcgacc ctctcacact	180
acataaacca cgccaggaca acctctgctc ctctccacc aaattccaag gggtcgagt	240
gatgttgag gtggcatggg cccagagagg tctctgacct ctgcccagc tccaaggtca	300
gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc cattttagg	360
acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagctgct	420
ggaggatggg aactgagggg ttggaagggg gcagggtgag cccagaaact cctgtgtgcc	480
tctgagcctg cagacgcgaa acgtcgactg gacacaggac gctgtggttt ctgagccagg	540

sequencelisting

gggcgactca gatcccagcc agtggactta gcccctgttt gctcctccga taactgggggt	600
gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc actgcttaaa	660
tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga cctgggacag	720
tgaatcgtaa gtactagcag ctacaatcca gctaccattc tgcttttatt ttatggttgg	780
gataaggctg gattattctg agtccaagct agggcctttt gctaatacatg ttcatacctc	840
ttatcttcct cccacagctc ctgggcaacg tgctgggtctg tgtgctggcc catcactttg	900
gcaaagaatt gcgatcgcca ccatgcagat tgagctgagc acctgcttct tcctgtgcct	960
gctgaggttc tgcttctctg ccaccaggag atactacctg ggggctgtgg agctgagctg	1020
ggactacatg cagtctgacc tgggggagct gcctgtggat gccaggttcc ccccagagt	1080
gccaagagc ttccccttca acacctctgt ggtgtacaag aagaccctgt ttgtggagtt	1140
cactgaccac ctgttcaaca ttgccaagcc caggcccccc tggatgggcc tgctgggccc	1200
caccatccag gctgagggtg atgacactgt ggtgatcacc ctgaagaaca tggccagcca	1260
ccctgtgagc ctgcatgctg tgggggtgag ctactggaag gcctctgagg gggctgagta	1320
tgatgaccag accagccaga gggagaagga ggatgacaag gtgttccttg ggggcagcca	1380
cacctatgtg tggcaggtgc tgaaggagaa tggcccatg gcctctgacc ccctgtgcct	1440
gacctacagc tacctgagcc atgtggacct ggtgaaggac ctgaactctg gcctgattgg	1500
ggccctgctg gtgtgcaggg agggcagcct ggccaaggag aagaccaga ccctgcacaa	1560
gttcatcctg ctgtttgctg tgtttgatga gggcaagagc tggcactctg aaaccaagaa	1620
cagcctgatg caggacaggg atgctgcctc tgccagggcc tggcccaaga tgcacactgt	1680
gaatggctat gtgaacagga gcctgcctgg cctgattggc tgccacagga agtctgtgta	1740
ctggcatgtg attggcatgg gcaccacccc tgaggtgcac agcatcttcc tggagggcca	1800
caccttcctg gtcaggaacc acaggcaggc cagcctggag atcagcccca tcaccttcct	1860
gactgcccag accctgctga tggacctggg ccagttcctg ctgttctgcc acatcagcag	1920
ccaccagcat gatggcatgg aggcctatgt gaaggtggac agctgccctg aggagcccca	1980
gctgaggatg aagaacaatg aggaggctga ggactatgat gatgacctga ctgactctga	2040
gatggatgtg gtgaggtttg atgatgacaa cagccccagc ttcatccaga tcaggtctgt	2100

sequencelisting

ggccaagaag caccccaaga cctgggtgca ctacattgct gctgaggagg aggactggga	2160
ctatgcccc ctggtgctgg cccctgatga caggagctac aagagccagt acctgaacaa	2220
tggccccag aggattggca ggaagtacaa gaaggtcagg ttcattggcct acactgatga	2280
aaccttcaag accagggagg ccatccagca tgagtctggc atcctgggcc ccctgctgta	2340
tggggagggtg ggggacaccc tgctgatcat cttcaagaac caggccagca ggccctacaa	2400
catctacccc catggcatca ctgatgtgag gccctgtac agcaggaggc tgcccaaggg	2460
ggtgaagcac ctgaaggact tccccatcct gcctggggag atcttcaagt acaagtggac	2520
tgtgactgtg gaggatggcc ccaccaagtc tgaccccagg tgcctgacca gatactacag	2580
cagctttgtg aacatggaga gggacctggc ctctggcctg attggcccc tgctgatctg	2640
ctacaaggag tctgtggacc agaggggcaa ccagatcatg tctgacaaga ggaatgtgat	2700
cctgttctct gtgtttgatg agaacaggag ctggtacctg actgagaaca tccagaggtt	2760
cctgccccaac cctgctgggg tgcagctgga ggaccctgag ttccaggcca gcaacatcat	2820
gcacagcatc aatggctatg tgtttgacag cctgcagctg tctgtgtgcc tgcattgaggt	2880
ggcctactgg tacatcctga gcattggggc ccagactgac ttcctgtctg tgttcttctc	2940
tggctacacc ttcaagcaca agatggtgta tgaggacacc ctgaccctgt tccccttctc	3000
tggggagact gtgttcatga gcatggagaa ccctggcctg tggattctgg gctgccacaa	3060
ctctgacttc aggaacaggg gcatgactgc cctgctgaaa gtctccagct gtgacaagaa	3120
cactggggac tactatgagg acagctatga ggacatctct gcctacctgc tgagcaagaa	3180
caatgccatt gagcccagga gcttcagcca gaacccccca gtgctgaaga ggcaccagag	3240
ggagatcacc aggaccacc tgcaagtctga ccaggaggag attgactatg atgacaccat	3300
ctctgtggag atgaagaagg aggactttga catctacgac gaggacgaga accagagccc	3360
caggagcttc cagaagaaga ccaggcacta cttcattgct gctgtggaga ggctgtggga	3420
ctatggcatg agcagcagcc cccatgtgct gaggaacagg gccagctctg gctctgtgcc	3480
ccagttcaag aaggtggtgt tccaggagtt cactgatggc agcttcaccc agcccctgta	3540
cagaggggag ctgaatgagc acctgggcct gctgggcccc tacatcaggg ctgaggtgga	3600
ggacaacatc atggtgacct tcaggaacca ggccagcagg ccctacagct tctacagcag	3660

sequencelisting

cctgatcagc	tatgaggagg	accagaggca	gggggctgag	cccaggaaga	actttgtgaa	3720
gccaatgaa	accaagacct	acttctggaa	ggtgcagcac	cacatggccc	ccaccaagga	3780
tgagtttgac	tgcaaggcct	gggcctactt	ctctgatgtg	gacctggaga	aggatgtgca	3840
ctctggcctg	attggcccc	tgctggtgtg	ccacaccaac	accctgaacc	ctgcccattg	3900
caggcaggtg	actgtgcagg	agtttgcctt	gttcttcacc	atctttgatg	aaaccaagag	3960
ctggtacttc	actgagaaca	tggagaggaa	ctgcagggcc	ccctgcaaca	tccagatgga	4020
ggacccccacc	ttcaaggaga	actacaggtt	ccatgccatc	aatggctaca	tcatggacac	4080
cctgcctggc	ctggtgatgg	cccaggacca	gaggatcagg	tgggtacctgc	tgagcatggg	4140
cagcaatgag	aacatccaca	gcatccactt	ctctggccat	gtgttcactg	tgaggaagaa	4200
ggaggagtac	aagatggccc	tgtacaacct	gtaccctggg	gtgtttgaga	ctgtggagat	4260
gctgcccagc	aaggctggca	tctggagggt	ggagtgcctg	attggggagc	acctgcatgc	4320
tggcatgagc	acctgtttcc	tgggtgtacag	caacaagtgc	cagaccccc	tgggcatggc	4380
ctctggccac	atcagggact	tccagatcac	tgctctggc	cagtatggcc	agtgggcccc	4440
caagctggcc	aggctgcact	actctggcag	catcaatgcc	tggagcacca	aggagccctt	4500
cagctggatc	aaggtggacc	tgctggcccc	catgatcatc	catggcatca	agaccaggg	4560
ggccaggcag	aagttcagca	gcctgtacat	cagccagttc	atcatcatgt	acagcctgga	4620
tggcaagaag	tggcagacct	acaggggcaa	cagcactggc	acctgatgg	tgttctttgg	4680
caatgtggac	agctctggca	tcaagcaca	catcttcaac	cccccatca	ttgccagata	4740
catcaggctg	cacccaccc	actacagcat	caggagcacc	ctgaggatgg	agctgatggg	4800
ctgtgacctg	aacagctgca	gcatgcccct	gggcatggag	agcaaggcca	tctctgatgc	4860
ccagatcact	gccagcagct	acttcaccaa	catgtttgcc	acctggagcc	ccagcaaggc	4920
caggctgcac	ctgcagggca	ggagcaatgc	ctggaggccc	caggtcaaca	acccaagga	4980
gtggctgcag	gtggacttcc	agaagaccat	gaaggtgact	ggggtgacca	cccagggggt	5040
gaagagcctg	ctgaccagca	tgtatgtgaa	ggagttcctg	atcagcagca	gccaggatgg	5100
ccaccagtgg	acctgtttct	tccagaatgg	caaggtgaag	gtgttccagg	gcaaccagga	5160
cagcttcacc	cctgtggtga	acagcctgga	ccccccctg	ctgaccagat	acctgaggat	5220

sequencelisting

tcacccccag agctgggtgc accagattgc cctgaggatg gaggtgctgg gctgtgaggc	5280
ccaggacctg tactgacctc gaggtgtgcc ttctagttgc cagccatctg ttgtttgccc	5340
ctccccctg ccttccttga ccctggaagg tgccactccc actgtccttt cctaataaaa	5400
tgaggaaatt gcatcgcatt gtctgagtag gtgtcattct attctggggg gtgggggtggg	5460
gcaggacagc aagggggagg attgggaaga caatagcagg catgctgggg atgcggtggg	5520
ctctatgggc acgtggcggc cgcaggaacc cctagtgatg gagttggcca ctccctctct	5580
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgcgcc cgggctttgc	5640
ccgggcggcc tcagtgcgc agcgagcgcg cagagaggga gtggccaa	5688

<210> 11
 <211> 5613
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 11 ttggccactc cctctctgcg cgctcgctcg ctactgagg cgcgggggc aaagcccggg	60
cgtcgggcga ctttggtcg cccggcctca gtgagcgagc gagcgcgcag agagggagtg	120
gccaactcca tcactagggg ttcttgcggc cgcacgcgtg ttttcgacct ctctcacact	180
acctaaacca cgccaggaca acctctgctc ctctccaccg aaattccaag gggtcgagtg	240
gatgttgag gtggcatggg cccagagagg tctctgacct ctgccccagc tccaaggtca	300
gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc cattttaggg	360
acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagctgct	420
ggaggatggg aactgagggg ttggaagggg gcagggtgag cccagaaact cctgtgtgcc	480
tctgagcctg cagacgcgaa acgtcgactg gacacaggac gctgtggttt ctgagccagg	540
gggcgactca gatcccagcc agtggactta gcccctgttt gtcctccga taactggggg	600
gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc actgcttaaa	660
tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga cctgggacag	720
tgaatcgtaa gtactagcag ctacaatcca gctaccattc tgcttttatt ttatgggttg	780
gataaggctg gattattctg agtccaagct aggccctttt gctaatacatg ttcatacctc	840

sequencelisting

ttatcttcct cccacagctc ctgggcaacg tgctgggtctg tgtgctggcc catcactttg	900
gcaaagaatt gcgatcgcca ccatgcagat tgagctgagc acctgcttct tcctgtgcct	960
gctgagggtc tgcttctctg ccaccaggag atactacctg ggggctgtgg agctgagctg	1020
ggactacatg cagtctgacc tgggggagct gcctgtggat gccaggttcc cccccagagt	1080
gccaagagc ttccccttca acacctctgt ggtgtacaag aagaccctgt ttgtggagtt	1140
cactgaccac ctgttcaaca ttgccaagcc caggcccccc tggatgggcc tgctgggccc	1200
caccatccag gctgagggtg atgacactgt ggtgatcacc ctgaagaaca tggccagcca	1260
ccctgtgagc ctgcatgctg tgggggtgag ctactggaag gcctctgagg gggctgagta	1320
tgatgaccag accagccaga gggagaagga ggatgacaag gtgttcctg ggggcagcca	1380
cacctatgtg tggcagggtc tgaaggagaa tggcccatg gcctctgacc ccctgtgcct	1440
gacctacagc tacctgagcc atgtggacct ggtgaaggac ctgaactctg gcctgattgg	1500
ggccctgctg gtgtgcaggg agggcagcct ggccaaggag aagaccaga ccctgcacaa	1560
gttcatcctg ctgtttgctg tgtttgatga gggcaagagc tggcactctg aaaccaagaa	1620
cagcctgatg caggacaggg atgctgcctc tgccagggcc tggcccaaga tgcacactgt	1680
gaatggctat gtgaacagga gcctgcctgg cctgattggc tgccacagga agtctgtgta	1740
ctggcatgtg attggcatgg gcaccacccc tgagggtgcac agcatcttcc tggagggcca	1800
caccttcctg gtcaggaacc acaggcaggc cagcctggag atcagcccca tcaccttcct	1860
gactgcccag accctgctga tggacctggg ccagttcctg ctgttctgcc acatcagcag	1920
ccaccagcat gatggcatgg aggcctatgt gaaggtggac agctgccctg aggagcccca	1980
gctgaggatg aagaacaatg aggaggctga ggactatgat gatgacctga ctgactctga	2040
gatggatgtg gtgaggtttg atgatgacaa cagccccagc ttcattcaga tcaggtctgt	2100
ggccaagaag caccccaaga cctgggtgca ctacattgct gctgaggagg aggactggga	2160
ctatgcccc ctggtgctgg cccctgatga caggagctac aagagccagt acctgaacaa	2220
tggccccag aggattggca ggaagtacaa gaaggtcagg ttcatggcct acactgatga	2280
aaccttcaag accaggagg ccatccagca tgagtctggc atcctgggcc ccctgctgta	2340
tggggagggtg ggggacaccc tgctgatcat cttcaagaac caggccagca ggccctacaa	2400

sequencelisting

catctacccc catggcatca ctgatgtgag gcccctgtac agcaggaggc tgcccaaggg	2460
ggtgaagcac ctgaaggact tccccatcct gcctggggag atcttcaagt acaagtggac	2520
tgtgactgtg gaggatggcc ccaccaagtc tgaccccagg tgccctgacca gatactacag	2580
cagctttgtg aacatggaga gggacctggc ctctggcctg attggcccc tgctgatctg	2640
ctacaaggag tctgtggacc agaggggcaa ccagatcatg tctgacaaga ggaatgtgat	2700
cctgttctct gtgtttgatg agaacaggag ctggtacctg actgagaaca tccagaggtt	2760
cctgccaac cctgctgggg tgacagctgga ggacctgag ttccaggcca gcaacatcat	2820
gcacagcatc aatggctatg tgtttgacag cctgcagctg tctgtgtgcc tgcattgaggt	2880
ggcctactgg tacatcctga gcattggggc ccagactgac ttctgtctg tgttcttctc	2940
tggctacacc ttcaagcaca agatggtgta tgaggacacc ctgacctgt tccccttctc	3000
tggggagact gtgttcatga gcatggagaa ccctggcctg tggattctgg gctgccacaa	3060
ctctgacttc aggaacaggg gcatgactgc cctgctgaaa gtctccagct gtgacaagaa	3120
cactggggac tactatgagg acagctatga ggacatctct gcctacctgc tgagcaagaa	3180
caatgccatt gagcccagga gcttcagcca gaacccccca gtgctgaaga ggcaccagag	3240
ggagatcacc aggaccacc tgacgtctga ccaggaggag attgactatg atgacaccat	3300
ctctgtggag atgaagaagg aggactttga catctacgac gaggacgaga accagagccc	3360
caggagcttc cagaagaaga ccaggcacta cttcattgct gctgtggaga ggctgtggga	3420
ctatggcatg agcagcagcc cccatgtgct gaggaacagg gccagctctg gctctgtgcc	3480
ccagttcaag aaggtggtgt tccaggagtt cactgatggc agcttcaccc agcccctgta	3540
cagaggggag ctgaatgagc acctgggcct gctgggcccc tacatcaggg ctgaggtgga	3600
ggacaacatc atggtgacct tcaggaacca ggccagcagg ccctacagct tctacagcag	3660
cctgatcagc tatgaggagg accagaggca gggggctgag ccaggaaga actttgtgaa	3720
gccaatgaa accaagacct acttctggaa ggtgcagcac cacatggccc ccaccaagga	3780
tgagtttgac tgcaaggcct gggcctactt ctctgatgtg gacctggaga aggatgtgca	3840
ctctggcctg attggcccc tgctggtgtg ccacaccaac accctgaacc ctgcccattg	3900
caggcaggtg actgtgcagg agtttgcct gttcttcacc atctttgatg aaaccaagag	3960

sequencelisting

ctggtacttc actgagaaca tggagaggaa ctgcagggcc ccctgcaaca tccagatgga	4020
ggacccccacc ttcaaggaga actacagggt ccatgccatc aatggctaca tcatggacac	4080
cctgcctggc ctggtgatgg cccaggacca gaggatcagg tggtagctgc tgagcatggg	4140
cagcaatgag aacatccaca gcatccactt ctctggccat gtgttcactg tgaggaagaa	4200
ggaggagtac aagatggccc tgtacaacct gtaccctggg gtgtttgaga ctgtggagat	4260
gctgcccagc aaggctggca tctggagggt ggagtgctg attggggagc acctgcatgc	4320
tggcatgagc accctgttcc tgggtgtacag caacaagtgc cagaccccc tgggcatggc	4380
ctctggccac atcagggact tccagatcac tgcctctggc cagtatggcc agtgggcccc	4440
caagctggcc aggctgcact actctggcag catcaatgcc tggagcacca aggagccctt	4500
cagctggatc aaggtggacc tgctggcccc catgatcatc catggcatca agaccaggg	4560
ggccaggcag aagttcagca gcctgtacat cagccagttc atcatcatgt acagcctgga	4620
tggcaagaag tggcagacct acaggggcaa cagcactggc accctgatgg tgttctttgg	4680
caatgtggac agctctggca tcaagcaca catcttcaac ccccccata ttgccagata	4740
catcaggctg caccacacc actacagcat caggagcacc ctgaggatgg agctgatggg	4800
ctgtgacctg aacagctgca gcatgcccct gggcatggag agcaaggcca tctctgatgc	4860
ccagatcact gccagcagct acttcaccaa catgtttgcc acctggagcc ccagcaaggc	4920
caggctgcac ctgcagggca ggagcaatgc ctggaggccc caggtcaaca accccaagga	4980
gtggctgcag gtggacttcc agaagaccat gaaggtgact ggggtgacca cccaggggt	5040
gaagagcctg ctgaccagca tgtatgtgaa ggagttcctg atcagcagca gccaggatgg	5100
ccaccagtgg accctgttct tccagaatgg caaggtgaag gtgttccagg gcaaccagga	5160
cagcttcacc cctgtggtga acagcctgga cccccctg ctgaccagat acctgaggat	5220
tcacccccag agctgggtgc accagattgc cctgaggatg gaggtgctgg gctgtgaggc	5280
ccaggacctg tactgacctc gaggcactgt cttttcctaa taaaatgagg aaattgcatc	5340
gcattgtctg agtaggtgtc attctattct ggggggtggg gtggggcagg acagcaaggg	5400
ggaggattgg gaagacaata gcaggcatgc tggggatgcg gtgggctcta tgggcacgtg	5460
gcggccgcag gaaccctag tgatggagtt ggccactccc tctctgcgcg ctcgctcgct	5520

sequencelisting

cactgaggcc gggcgaccaa aggtcgcccc acgcccgggc ttgcccggg cggcctcagt 5580
gagcgagcga gcgcgcagag agggagtggc caa 5613

<210> 12
<211> 5362
<212> DNA
<213> Adeno-Associated Virus 2

<400> 12
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg 60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgcag agagggagtg 120
gccaactcca tctactagggg ttcctgcggc cgcacgcgtg ttttcgactg tttgctgttt 180
gctgcttgca atgtttgccc attttaggga catgtttgct gtttgctgct tgcaatgttt 240
gcccatttta gggacatgtt tgctgtttgc tgcttgcaat gtttgcccat ttagggaca 300
tgtttgctgt ttgctgcttg caatgtttgc ccattttagg gacaacgcga aacgtcgact 360
ggacacagga cgctgtggtt tctgagccag ggggcgactc agatcccagc cagtggactt 420
agcccctgtt tgctcctccg ataactgggg tgaccttggc taatattcac cagcagcctc 480
ccccgttgcc cctctggatc cactgcttaa atacggacga ggacagggcc ctgtctcctc 540
agcttcaggc accaccactg acctgggaca gtgaatcgta agtactagca gctacaatcc 600
agctaccatt ctgcttttat tttatggttg ggataaggct ggattattct gagtccaagc 660
taggcccttt tgctaatacat gttcatacct cttatcttcc tcccacagct cctgggcaac 720
gtgctggtct gtgtgctggc ccatcacttt ggcaaagaat tgcgatcgcc accatgcaga 780
ttgagctgag cacctgcttc ttcctgtgcc tgctgagggt ctgcttctct gccaccagga 840
gatactacct gggggctgtg gagctgagct gggactacat gcagtctgac ctgggggagc 900
tgctgtgga tgccagggtc cccccagag tgcccaagag cttccccttc aacacctctg 960
tggtgtacaa gaagaccctg tttgtggagt tctactacca cctgttcaac attgccaagc 1020
ccaggcccc ctggatgggc ctgctgggcc ccaccatcca ggctgagggtg tatgacactg 1080
tggtgatcac cctgaagaac atggccagcc accctgtgag cctgcatgct gtgggggtga 1140
gctactggaa ggcctctgag ggggctgagt atgatgacca gaccagccag agggagaagg 1200
aggatgacaa ggtgttccct gggggcagcc acacctatgt gtggcaggtg ctgaaggaga 1260

sequencelisting

atggcccat	ggcctctgac	cccctgtgcc	tgacctacag	ctacctgagc	catgtggacc	1320
tggatgaagga	cctgaactct	ggcctgattg	gggccctgct	ggtgtgcagg	gagggcagcc	1380
tggccaagga	gaagaccag	accctgcaca	agttcatcct	gctgtttgct	gtgtttgatg	1440
agggaagag	ctggcactct	gaaaccaaga	acagcctgat	gcaggacagg	gatgctgcct	1500
ctgccagggc	ctggcccaag	atgcacactg	tgaatggcta	tgtgaacagg	agcctgcctg	1560
gcctgattgg	ctgccacagg	aagtctgtgt	actggcatgt	gattggcatg	ggcaccaccc	1620
ctgaggtgca	cagcatcttc	ctggagggcc	acaccttcct	ggtcaggaac	cacaggcagg	1680
ccagcctgga	gatcagcccc	atcaccttcc	tgactgccc	gacctgctg	atggacctgg	1740
gccagttcct	gctgttctgc	cacatcagca	gccaccagca	tgatggcatg	gaggcctatg	1800
tgaaggtgga	cagctgccct	gaggagcccc	agctgaggat	gaagaacaat	gaggaggctg	1860
aggactatga	tgatgacctg	actgactctg	agatggatgt	ggtgaggttt	gatgatgaca	1920
acagccccag	cttcatccag	atcaggtctg	tggccaagaa	gcacccaag	acctgggtgc	1980
actacattgc	tgctgaggag	gaggactggg	actatgcccc	cctgggtgctg	gcccctgatg	2040
acaggagcta	caagagccag	tacctgaaca	atggcccca	gaggattggc	aggaagtaca	2100
agaaggtcag	gttcatggcc	tacactgatg	aaaccttcaa	gaccaggag	gccatccagc	2160
atgagtctgg	catcctgggc	cccctgctgt	atggggagggt	gggggacacc	ctgctgatca	2220
tcttcaagaa	ccaggccagc	aggccctaca	acatctaccc	ccatggcatc	actgatgtga	2280
ggcccctgta	cagcaggagg	ctgccaagg	gggtgaagca	cctgaaggac	ttccccatcc	2340
tgctgggga	gatcttcaag	tacaagtgga	ctgtgactgt	ggaggatggc	cccaccaagt	2400
ctgaccccag	gtgcctgacc	agatactaca	gcagctttgt	gaacatggag	agggacctgg	2460
cctctggcct	gattggcccc	ctgctgatct	gctacaagga	gtctgtggac	cagaggggca	2520
accagatcat	gtctgacaag	aggaatgtga	tcctgttctc	tgtgtttgat	gagaacagga	2580
gctggtacct	gactgagaac	atccagaggt	tcctgccc	ccctgctggg	gtgcagctgg	2640
aggaccctga	gttccaggcc	agcaacatca	tgcacagcat	caatggctat	gtgtttgaca	2700
gcctgcagct	gtctgtgtgc	ctgcatgagg	tggcctactg	gtacatcctg	agcattgggg	2760
cccagactga	cttctgtct	gtgttcttct	ctggctacac	cttcaagcac	aagatggtgt	2820

sequencelisting

atgaggacac cctgaccctg ttcccccttct ctgggggagac tgtgttcatg agcatggaga	2880
accctggcct gtggattctg ggctgccaca actctgactt caggaacagg ggcatgactg	2940
ccctgctgaa agtctccagc tgtgacaaga aacttgggga ctactatgag gacagctatg	3000
aggacatctc tgcctacctg ctgagcaaga acaatgccat tgagcccagg agcttcagcc	3060
agaaccccc agtgctgaag aggcaccaga gggagatcac caggaccacc ctgcagtctg	3120
accaggagga gattgactat gatgacacca tctctgtgga gatgaagaag gaggactttg	3180
acatctacga cgaggacgag aaccagagcc ccaggagctt ccagaagaag accaggcact	3240
acttcattgc tgctgtggag aggctgtggg actatggcat gagcagcagc ccccatgtgc	3300
tgaggaacag ggcccagtct ggctctgtgc ccagttcaa gaagggtgtg ttccaggagt	3360
tcactgatgg cagcttcacc cagcccctgt acagagggga gctgaatgag cacctgggcc	3420
tgctggggcc ctacatcagg gctgaggtgg aggacaacat catggtgacc ttcaggaacc	3480
aggccagcag gccctacagc ttctacagca gcctgatcag ctatgaggag gaccagaggc	3540
agggggctga gccaggaag aactttgtga agcccaatga aaccaagacc tacttctgga	3600
aggtgcagca ccacatggcc cccaccaagg atgagtttga ctgcaaggcc tgggcctact	3660
tctctgatgt ggacctggag aaggatgtgc actctggcct gattggcccc ctgctggtgt	3720
gccacaccaa caccctgaac cctgcccattg gcaggcaggt gactgtgcag gagtttgccc	3780
tgttcttcac catctttgat gaaaccaaga gctggtactt cactgagaac atggagagga	3840
actgcagggc cccctgcaac atccagatgg aggacccac cttcaaggag aactacaggt	3900
tccatgccat caatggctac atcatggaca ccctgcctgg cctggtgatg gcccaggacc	3960
agaggatcag gtggtacctg ctgagcatgg gcagcaatga gaacatccac agcatccact	4020
tctctggcca tgtgttcact gtgaggaaga aggaggagta caagatggcc ctgtacaacc	4080
tgtaccctgg ggtgtttgag actgtggaga tgctgcccag caaggctggc atctggaggg	4140
tggagtgcct gattggggag cacctgcatg ctggcatgag caccctgttc ctggtgtaca	4200
gcaacaagtg ccagaccccc ctgggcatgg cctctggcca catcagggac ttccagatca	4260
ctgcctctgg ccagtatggc cagtggggcc ccaagctggc caggctgcac tactctggca	4320
gcatcaatgc ctggagcacc aaggagccct tcagctggat caaggtggac ctgctggccc	4380

sequencelisting

ccatgatcat ccatggcatc aagaccagg gggccaggca gaagttcagc agcctgtaca	4440
tcagccagtt catcatcatg tacagcctgg atggcaagaa gtggcagacc tacaggggca	4500
acagcactgg caccctgatg gtgttctttg gcaatgtgga cagctctggc atcaagcaca	4560
acatcttcaa cccccccatc attgccagat acatcaggct gcacccacc cactacagca	4620
tcaggagcac cctgaggatg gagctgatgg gctgtgacct gaacagctgc agcatgcccc	4680
tgggcatgga gagcaaggcc atctctgatg cccagatcac tgccagcagc tacttcacca	4740
acatgtttgc cacctggagc cccagcaagg ccaggctgca cctgcagggc aggagcaatg	4800
cctggaggcc ccaggtcaac aacccaagg agtggctgca ggtggacttc cagaagacca	4860
tgaaggtgac tggggtgacc acccaggggg tgaagagcct gctgaccagc atgtatgtga	4920
aggagttcct gatcagcagc agccaggatg gccaccagtg gaccctgttc ttccagaatg	4980
gcaaggtgaa ggtgttccag ggcaaccagg acagcttcac ccctgtggtg aacagcctgg	5040
acccccccct gctgaccaga tacctgagga ttcaccccca gagctgggtg caccagattg	5100
ccctgaggat ggaggtgctg ggctgtgagg cccaggacct gtactgacct cgaggaataa	5160
aggaaattta ttttcattgc aatagtgtgt tggttttttg tgtcacgtgg cggccgcagg	5220
aaccctagt gatggagttg gccactccct ctctgcgcgc tcgctcgctc actgaggccg	5280
ggcgaccaa ggtcgccga cgccgggct ttgccgggc ggcctcagtg agcgagcgag	5340
cgcgagaga gggagtggcc aa	5362

<210> 13
 <211> 5464
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 13 ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttctgcggc cgcacgcgtg ttttcgactg tttgctgttt	180
gctgcttgca atgtttgcc attttaggga catgtttgct gtttgctgct tgcaatgttt	240
gcccatttta gggacatgtt tgctgtttgc tgcttgcaat gtttgcccat tttagggaca	300

sequencelisting

tgtttgctgt ttgctgcttg caatgtttgc ccatttttagg gacaacgcga aacgtcgact	360
ggacacagga cgctgtgggt tctgagccag ggggcgactc agatcccagc cagtggactt	420
agcccctgtt tgctcctccg ataactgggg tgaccttggt taatattcac cagcagcctc	480
ccccgttgcc cctctggatc cactgcttaa atacggacga ggacagggcc ctgtctcctc	540
agcttcaggc accaccactg acctgggaca gtgaatcgta agtactagca gctacaatcc	600
agctaccatt ctgcttttat tttatggttg ggataaggct ggattattct gagtccaagc	660
taggcccttt tgctaatacat gttcatacct cttatcttcc tcccacagct cctgggcaac	720
gtgctggctct gtgtgctggc ccatcacttt ggcaaagaat tgcgatcgcc accatgcaga	780
ttgagctgag cacctgcttc ttcctgtgcc tgctgagggt ctgcttctct gccaccagga	840
gatactacct gggggctgtg gagctgagct gggactacat gcagtctgac ctgggggagc	900
tgcctgtgga tgccagggtc ccccccagag tgcccaagag cttccccttc aacacctctg	960
tggtgtacaa gaagaccctg tttgtggagt tctactgacca cctgttcaac attgccaagc	1020
ccaggccccc ctggatgggc ctgctgggcc ccaccatcca ggctgagggt tatgacactg	1080
tggtgatcac cctgaagaac atggccagcc accctgtgag cctgcatgct gtgggggtga	1140
gctactggaa ggcctctgag ggggctgagt atgatgacca gaccagccag agggagaagg	1200
aggatgacaa ggtgttccct gggggcagcc acacctatgt gtggcagggt ctgaaggaga	1260
atggcccat ggcctctgac cccctgtgcc tgacctacag ctacctgagc catgtggacc	1320
tggtgaagga cctgaactct ggcctgattg gggccctgct ggtgtgcagg gagggcagcc	1380
tggccaagga gaagaccag accctgcaca agttcatcct gctgtttgct gtgtttgatg	1440
agggcaagag ctggcactct gaaaccaaga acagcctgat gcaggacagg gatgctgcct	1500
ctgccagggc ctggcccaag atgcacactg tgaatggcta tgtgaacagg agcctgcctg	1560
gcctgattgg ctgccacagg aagtctgtgt actggcatgt gattggcatg ggcaccaccc	1620
ctgaggtgca cagcatcttc ctggagggcc acaccttctt ggtcaggaac cacaggcagg	1680
ccagcctgga gatcagcccc atcaccttcc tgactgccc aaccctgctg atggacctgg	1740
gccagttcct gctgttctgc cacatcagca gccaccagca tgatggcatg gaggcctatg	1800
tgaagggtgga cagctgccct gaggagcccc agctgaggat gaagaacaat gaggaggctg	1860

sequencelisting

aggactatga tgatgacctg actgactctg agatggatgt ggtgaggttt gatgatgaca	1920
acagccccag cttcatccag atcaggtctg tggccaagaa gcacccaag acctgggtgc	1980
actacattgc tgctgaggag gaggactggg actatgcccc cctgggtgctg gccctgatg	2040
acaggagcta caagagccag tacctgaaca atggcccca gaggattggc aggaagtaca	2100
agaaggtcag gttcatggcc tacactgatg aaaccttcaa gaccaggag gccatccagc	2160
atgagtctgg catcctgggc cccctgctgt atggggaggt gggggacacc ctgctgatca	2220
tcttcaagaa ccaggccagc aggccctaca acatctaccc ccatggcatc actgatgtga	2280
ggcccctgta cagcaggagg ctgccaagg gggatgaagca cctgaaggac ttccccatcc	2340
tgcctgggga gatcttcaag tacaagtgga ctgtgactgt ggaggatggc cccaccaagt	2400
ctgacccag gtgcctgacc agatactaca gcagctttgt gaacatggag agggacctgg	2460
cctctggcct gattggcccc ctgctgatct gctacaagga gtctgtggac cagaggggca	2520
accagatcat gtctgacaag aggaatgtga tcctgttctc tgtgtttgat gagaacagga	2580
gctggtacct gactgagaac atccagaggt tcctgccaa ccctgctggg gtgcagctgg	2640
aggacctga gttccaggcc agcaacatca tgcacagcat caatggctat gtgtttgaca	2700
gcctgcagct gtctgtgtgc ctgcatgagg tggcctactg gtacatcctg agcattgggg	2760
cccagactga cttcctgtct gtgttcttct ctggctacac cttcaagcac aagatggtgt	2820
atgaggacac cctgaccctg ttccccttct ctggggagac tgtgttcatg agcatggaga	2880
accctggcct gtggattctg ggctgccaca actctgactt caggaacagg ggcatgactg	2940
ccctgctgaa agtctccagc tgtgacaaga aactgggga ctactatgag gacagctatg	3000
aggacatctc tgcctacctg ctgagcaaga acaatgccat tgagcccagg agcttcagcc	3060
agaaccccc agtgctgaag aggcaccaga gggagatcac caggaccacc ctgcagtctg	3120
accaggagga gattgactat gatgacacca tctctgtgga gatgaagaag gaggactttg	3180
acatctacga cgaggacgag aaccagagcc ccaggagctt ccagaagaag accaggcact	3240
acttcattgc tgctgtggag aggctgtggg actatggcat gagcagcagc ccccatgtgc	3300
tgaggaacag ggcccagtct ggctctgtgc ccagttcaa gaaggtggtg ttccaggagt	3360
tcactgatgg cagcttcacc cagcccctgt acagagggga gctgaatgag cacctgggcc	3420

sequencelisting						
tgctgggccc	ctacatcagg	gctgaggtgg	aggacaacat	catggtgacc	ttcaggaacc	3480
aggccagcag	gccctacagc	ttctacagca	gcctgatcag	ctatgaggag	gaccagaggc	3540
agggggctga	gcccaggaag	aactttgtga	agcccaatga	aaccaagacc	tactttctgga	3600
aggtgcagca	ccacatggcc	cccaccaagg	atgagtttga	ctgcaaggcc	tgggcctact	3660
tctctgatgt	ggacctggag	aaggatgtgc	actctggcct	gattggcccc	ctgctggtgt	3720
gccacaccaa	caccctgaac	cctgccccatg	gcaggcaggt	gactgtgcag	gagtttgccc	3780
tgttcttcac	catctttgat	gaaaccaaga	gctggtactt	cactgagaac	atggagagga	3840
actgcagggc	cccctgcaac	atccagatgg	aggacccac	cttcaaggag	aactacaggt	3900
tccatgccat	caatggctac	atcatggaca	ccctgcctgg	cctggtgatg	gcccaggacc	3960
agaggatcag	gtggtacctg	ctgagcatgg	gcagcaatga	gaacatccac	agcatccact	4020
tctctggcca	tgtgttcact	gtgaggaaga	aggaggagta	caagatggcc	ctgtacaacc	4080
tgtaccctgg	ggtgtttgag	actgtggaga	tgctgcccag	caaggctggc	atctggaggg	4140
tggagtgcct	gattggggag	cacctgcatg	ctggcatgag	caccctgttc	ctggtgtaca	4200
gcaacaagtg	ccagaccccc	ctgggcatgg	cctctggcca	catcaggga	ttccagatca	4260
ctgcctctgg	ccagtatggc	cagtgggccc	ccaagctggc	caggctgcac	tactctggca	4320
gcatcaatgc	ctggagcacc	aaggagccct	tcagctggat	caaggctggc	ctgctggccc	4380
ccatgatcat	ccatggcatc	aagaccagg	gggccaggca	gaagttcagc	agcctgtaca	4440
tcagccagtt	catcatcatg	tacagcctgg	atggcaagaa	gtggcagacc	tacaggggca	4500
acagcactgg	caccctgatg	gtgttctttg	gcaatgtgga	cagctctggc	atcaagcaca	4560
acatcttcaa	ccccccatc	attgccagat	acatcaggct	gcacccacc	cactacagca	4620
tcaggagcac	cctgaggatg	gagctgatgg	gctgtgacct	gaacagctgc	agcatgcccc	4680
tgggcatgga	gagcaaggcc	atctctgatg	cccagatcac	tgccagcagc	tacttcacca	4740
acatgtttgc	cacctggagc	cccagcaagg	ccaggctgca	cctgcagggc	aggagcaatg	4800
cctggaggcc	ccaggtcaac	aacccaagg	agtggctgca	ggtggacttc	cagaagacca	4860
tgaaggtgac	tggggtgacc	accaggggg	tgaagagcct	gctgaccagc	atgtatgtga	4920
aggagtccct	gatcagcagc	agccaggatg	gccaccagt	gaccctgttc	ttccagaatg	4980

sequencelisting

gcaaggtgaa ggtgttccag ggcaaccagg acagcttcac ccctgtggtg aacagcctgg	5040
acccccccct gctgaccaga tacctgagga ttcacccccca gagctgggtg caccagattg	5100
ccctgaggat ggaggtgctg ggctgtgagg cccaggacct gtactgacct cgaggcactg	5160
tcctttccta ataaaatgag gaaattgcat cgcattgtct gagtaggtgt cattctattc	5220
tgggggggtgg ggtggggcag gacagcaagg gggaggattg ggaagacaat agcaggcatg	5280
ctgggggatgc ggtgggctct atgggcacgt ggcgccgca ggaacccta gtgatggagt	5340
tggccactcc ctctctgcg gctcgctcg tcactgaggc cgggcgacca aaggtcgccc	5400
gacggccggg ctttgcccg gcgccctcag tgagcgagcg agcgcgaga gagggagtgg	5460
ccaa	5464

<210> 14

<211> 6354

<212> DNA

<213> Adeno-Associated Virus 2

<400> 14

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccggccgggc aaagcccggg	60
cgtcgggcga ctttggctg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttctgctggc cgcacgcgtg tttaaacgtc gacaggttaa	180
tttttaaaaa gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc	240
tctggttaat aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc	300
tggacttatc ctctgggcct ctccccaccc ccaggagagg ctgaggttaa tttttaaaaa	360
gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc tctggttaat	420
aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc tggacttatc	480
ctctgggcct ctccccaccc ccaggagagg ctgtcgactg gacacaggac gctgtggttt	540
ctgagccagg gggcgactca gatcccagcc agtggactta gccctgttt gtcctccga	600
taactggggg gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc	660
actgcttaaa tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga	720
cctgggacag tgaatcgtaa gtactagcag ctacaatcca gctaccattc tgcttttatt	780
ttatggttgg gataaggctg gattattctg agtccaagct aggccctttt gctaatactg	840

sequencelisting

ttcatacctc ttatcttcct cccacagctc ctgggcaacg tgctggtctg tgtgctggcc	900
catcactttg gcaaagaatt gcgatcgcca ccatgcagat tgagctgagc acctgcttct	960
tcctgtgcct gctgaggttc tgcttctctg ccaccaggag atactacctg ggggctgtgg	1020
agctgagctg ggactacatg cagtctgacc tgggggagct gcctgtggat gccaggttcc	1080
ccccagagt gccaagagc ttccccctca acacctctgt ggtgtacaag aagaccctgt	1140
ttgtggagtt cactgaccac ctgttcaaca ttgccaagcc caggcccccc tggatgggcc	1200
tgctggggcc caccatccag gctgaggtgt atgacactgt ggtgatcacc ctgaagaaca	1260
tggccagcca ccctgtgagc ctgcatgctg tgggggtgag ctactggaag gcctctgagg	1320
gggctgagta tgatgaccag accagccaga gggagaagga ggatgacaag gtgttccctg	1380
ggggcagcca cacctatgtg tggcaggtgc tgaaggagaa tggccccatg gcctctgacc	1440
ccctgtgcct gacctacagc tacctgagcc atgtggacct ggtgaaggac ctgaactctg	1500
gcctgattgg ggccctgctg gtgtgcaggg agggcagcct ggccaaggag aagaccaga	1560
ccctgcacaa gttcatcctg ctgtttgctg tgtttgatga gggcaagagc tggcactctg	1620
aaaccaagaa cagcctgatg caggacaggg atgctgcctc tgccagggcc tggccaaga	1680
tgacactgt gaatggctat gtgaacagga gcctgcctgg cctgattggc tgccacagga	1740
agtctgtgta ctggcatgtg attggcatgg gcaccacccc tgaggtgcac agcatcttcc	1800
tggagggcca caccttcctg gtcaggaacc acaggcaggc cagcctggag atcagcccca	1860
tcaccttcct gactgcccag accctgctga tggacctggg ccagttcctg ctgttctgcc	1920
acatcagcag ccaccagcat gatggcatgg aggcctatgt gaaggtggac agctgccctg	1980
aggagcccca gctgaggatg aagaacaatg aggaggctga ggactatgat gatgacctga	2040
ctgactctga gatggatgtg gtgaggtttg atgatgacaa cagccccagc ttcattcaga	2100
tcaggtctgt ggccaagaag caccccaaga cctgggtgca ctacattgct gctgaggagg	2160
aggactggga ctatgcccc ctggtgctgg cccctgatga caggagctac aagagccagt	2220
acctgaacaa tggccccag aggattggca ggaagtacaa gaaggtcagg ttcattgcct	2280
acactgatga aaccttcaag accaggagg ccatccagca tgagtctggc atcctgggcc	2340
ccctgctgta tggggaggtg ggggacaccc tgctgatcat cttcaagaac caggccagca	2400

sequencelisting

ggccctacaa catctacccc catggcatca ctgatgtgag gcccctgtac agcaggaggc	2460
tgcccaaggg ggtgaagcac ctgaaggact tccccatcct gcctggggag atcttcaagt	2520
acaagtggac tgtgactgtg gaggatggcc ccaccaagtc tgaccccagg tgcctgacca	2580
gatactacag cagctttgtg aacatggaga gggacctggc ctctggcctg attggcccc	2640
tgctgatctg ctacaaggag tctgtggacc agaggggcaa ccagatcatg tctgacaaga	2700
ggaatgtgat cctgtttctt gtgtttgatg agaacaggag ctggtacctg actgagaaca	2760
tccagagggt cctgcccac cctgctgggg tgcagctgga ggacctgag ttccaggcca	2820
gcaacatcat gcacagcatc aatggctatg tgtttgacag cctgcagctg tctgtgtgcc	2880
tgcatgaggt ggcctactgg tacatcctga gcattggggc ccagactgac ttctgtctg	2940
tgttcttctc tggctacacc ttcaagcaca agatggtgta tgaggacacc ctgaccctgt	3000
tcccccttctc tggggagact gtgttcatga gcatggagaa ccctggcctg tggattctgg	3060
gctgccacaa ctctgacttc aggaacaggg gcatgactgc cctgctgaaa gtctccagct	3120
gtgacaagaa cactggggac tactatgagg acagctatga ggacatctct gcctacctgc	3180
tgagcaagaa caatgccatt gagcccagga gcttcagcca gaacccccca gtgctgaaga	3240
ggcaccagag ggagatcacc aggaccacc tgcagtctga ccaggaggag attgactatg	3300
atgacaccat ctctgtggag atgaagaagg aggactttga catctacgac gaggacgaga	3360
accagagccc caggagcttc cagaagaaga ccaggcacta cttcattgct gctgtggaga	3420
ggctgtggga ctatggcatg agcagcagcc cccatgtgct gaggaacagg gccagctctg	3480
gctctgtgcc ccagttcaag aaggtggtgt tccaggagtt cactgatggc agcttcaccc	3540
agcccctgta cagaggggag ctgaatgagc acctgggcct gctgggcccc tacatcaggg	3600
ctgaggtgga ggacaacatc atggtgacct tcaggaacca ggccagcagg ccctacagct	3660
tctacagcag cctgatcagc tatgaggagg accagaggca gggggctgag cccaggaaga	3720
actttgtgaa gcccaatgaa accaagacct acttctggaa ggtgcagcac cacatggccc	3780
ccaccaagga tgagtttgac tgcaaggcct gggcctactt ctctgatgtg gacctggaga	3840
aggatgtgca ctctggcctg attggcccc tgctggtgtg ccacaccaac accctgaacc	3900
ctgcccattg caggcaggtg actgtgcagg agtttgcct gttcttcacc atctttgatg	3960

sequencelisting

aaaccaagag	ctggtacttc	actgagaaca	tggagaggaa	ctgcagggcc	ccctgcaaca	4020
tccagatgga	ggaccccacc	ttcaaggaga	actacaggtt	ccatgccatc	aatggctaca	4080
tcatggacac	cctgcctggc	ctggtgatgg	cccaggacca	gaggatcagg	tggtacctgc	4140
tgagcatggg	cagcaatgag	aacatccaca	gcatccactt	ctctggccat	gtgttcactg	4200
tgaggaagaa	ggaggagtac	aagatggccc	tgtacaacct	gtaccctggg	gtgtttgaga	4260
ctgtggagat	gctgcccagc	aaggctggca	tctggagggt	ggagtgcctg	attggggagc	4320
acctgcatgc	tggcatgagc	accctgttcc	tggtgtacag	caacaagtgc	cagaccccc	4380
tgggcatggc	ctctggccac	atcagggact	tccagatcac	tgccctctggc	cagtatggcc	4440
agtgggcccc	caagctggcc	aggctgcact	actctggcag	catcaatgcc	tggagcacca	4500
aggagccctt	cagctggatc	aaggtggacc	tgctggcccc	catgatcatc	catggcatca	4560
agaccagggg	ggccaggcag	aagttcagca	gcctgtacat	cagccagttc	atcatcatgt	4620
acagcctgga	tggcaagaag	tggcagacct	acaggggcaa	cagcactggc	accctgatgg	4680
tgttcttttg	caatgtggac	agctctggca	tcaagcacia	catcttcaac	cccccatca	4740
ttgccagata	catcaggctg	cacccccacc	actacagcat	caggagcacc	ctgaggatgg	4800
agctgatggg	ctgtgacctg	aacagctgca	gcatgcccct	gggcatggag	agcaaggcca	4860
tctctgatgc	ccagatcact	gccagcagct	acttcaccaa	catgtttgcc	acctggagcc	4920
ccagcaaggc	caggctgcac	ctgcagggca	ggagcaatgc	ctggaggccc	caggtcaaca	4980
acccaagga	gtggctgcag	gtggacttcc	agaagaccat	gaaggtgact	ggggtgacca	5040
cccagggggg	gaagagcctg	ctgaccagca	tgtatgtgaa	ggagtctctg	atcagcagca	5100
gccaggatgg	ccaccagtgg	accctgttct	tccagaatgg	caaggtgaag	gtgttccagg	5160
gcaaccagga	cagcttcacc	cctgtgggtga	acagcctgga	cccccccctg	ctgaccagat	5220
acctgaggat	tcacccccag	agctgggtgc	accagattgc	cctgaggatg	gaggtgctgg	5280
gctgtgaggc	ccaggacctg	tactgacctc	gaggtgtgcc	ttctagttgc	cagccatctg	5340
ttgtttgccc	ctccccgtg	ccttccttga	ccctggaagg	tgccactccc	actgtccttt	5400
cctaataaaa	tgaggaaatt	gcatcgcatt	gtctgagtag	gtgtcattct	attctggggg	5460
gtggggtggg	gcaggacagc	aagggggagg	attgggaaga	caatagcagg	catgctgggg	5520

sequencelisting

atgcggtggg ctctatgggc acgtgccctc tcacactacc taaaccacgc caggacaacc	5580
tctgtcctc tccaccgaaa ttccaagggg tcgagtggat gttggaggtg gcatgggccc	5640
agagaggtct ctgacctctg ccccagctcc aaggtcagca ggcagggagg gctgtgtgtt	5700
tgctgtttgc tgcttgcaat gtttgcccat tttagggaca tgagtaggct gaagtttggt	5760
cagtgtggac ttcagaggca gcacacaaac agctgctgga ggatgggaac tgaggggttg	5820
gaagggggca gggtagagccc agaaactcct gtgtgcctct gagcctgcag ccctctcaca	5880
ctacctaaac cacgccagga caacctctgc tcctctccac cgaaattcca aggggtcgag	5940
tggatgttgg aggtggcatg ggcccagaga ggtctctgac ctctgcccc gctccaaggt	6000
cagcaggcag ggagggctgt gtgtttgctg tttgctgctt gcaatgtttg cccattttag	6060
ggacatgagt aggctgaagt ttgttcagtg tggacttcag aggcagcaca caaacagctg	6120
ctggaggatg ggaactgagg ggttggaagg gggcaggggtg agcccagaaa ctcctgtgtg	6180
cctctgagcc tgcagcacgt ggcggccgca ggaaccctta gtgatggagt tggccactcc	6240
ctctctgctg gctcgctcgc tcactgaggc cgggcgacca aaggtcgccc gacgccggg	6300
ctttgcccgg gcggcctcag tgagcgagcg agcgcgcaga gagggagtgg ccaa	6354

<210> 15

<211> 6308

<212> DNA

<213> Adeno-Associated Virus 2

<400> 15

ttggccactc cctctctgct cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga ctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcttgccgc cgcacgcgtg ttaattttta aaaagcagtc	180
aaaagtccaa gtggcccttg gcagcattta ctctctctgt ttgctctggt taataatctc	240
aggagcacia acattccttg aggcaggaga agaaatcaac atcctggact tatcctcttg	300
gcctgttaat ttttaaaaag cagtcaaaag tccaagtggc ctttggcagc atttactctc	360
tctgtttgct ctggttaata atctcaggag caciaacatt cctggaggca ggagaagaaa	420
tcaacatcct ggacttatcc tctgggccta ggcctgaggc tgggtcaaaat tgaacctcct	480

sequencelisting

cctgctctga gcagcctggg gggcagacta agcagagggc tgtgcagacc cacataaaga	540
gcctactgtg tgccaggcac ttcacccgag gcacttcaca agcatgcttg ggaatgaaac	600
ttccaactct ttgggatgca ggtgaaacag ttcctggttc agagaggtga agcggcctgc	660
ctgaggcagc acagctcttc tttacagatg tgcttcccca cctctaccct gtctcacggc	720
cccccatgcc agcctgacgg ttgtgtctgc ctgagtcag ctccattttt ccatcgggac	780
catcaagagg gtgttttgtgt ctaaggctga ctgggtaact ttggatgagc ggtctctccg	840
ctctgagcct gtttcctcat ctgtcaaatg ggctctaacc cactctgatc tcccagggcg	900
gcagtaagtc ttcagcatca ggcatTTTTg ggtgactcag taaatggtag atcttgctac	960
cagtggaaca gccactaagg attctgcagt gagagcagag ggccagctaa gtggtactct	1020
cccagagact gtctgactca cgccaccccc tccaccttgg acacaggacg ctgtggtttc	1080
tgagccagggt acaatgactc ctttcggtaa gtgcagtgga agctgtacac tgcccaggca	1140
aagcgtccgg gcagcgtagg cgggcgactc agatcccagc cagtggactt agcccctgtt	1200
tgctcctccg ataactgggg tgaccttgggt taatattcac cagcagcctc ccccgttgcc	1260
cctctggatc cactgcttaa atacggacga ggacagggcc ctgtctcctc agcttcaggc	1320
accaccactg acctgggaca gtgaatcgta agtactagca gctacaatcc agctaccatt	1380
ctgcttttat tttatggttg ggataaggct ggattattct gagtccaagc taggcccttt	1440
tgctaatacat gttcatacct cttatcttcc tcccacagct cctgggcaac gtgctggtct	1500
gtgtgctggc ccatcacttt ggcaaagaat tgcgatgcc accatgcaga ttgagctgag	1560
cacctgcttc ttcctgtgcc tgctgagggt ctgcttctct gccaccagga gatactacct	1620
gggggctgtg gagctgagct gggactacat gcagtctgac ctgggggagc tgcctgtgga	1680
tgccagggtc cccccagag tgcccaagag cttccccttc aacacctctg tgggtgtacaa	1740
gaagaccctg tttgtggagt tctactacca cctgttcaac attgccaagc ccaggcccc	1800
ctggatgggc ctgctgggcc ccaccatcca ggctgagggt tatgacactg tggtgatcac	1860
cctgaagaac atggccagcc accctgtgag cctgcatgct gtgggggtga gctactggaa	1920
ggcctctgag ggggctgagt atgatgacca gaccagccag agggagaagg aggatgacaa	1980
ggtgttcctt gggggcagcc acacctatgt gtggcagggt ctgaaggaga atggcccat	2040

sequencelisting						
ggcctctgac	cccctgtgcc	tgacctacag	ctacctgagc	catgtggacc	tggtgaagga	2100
cctgaactct	ggcctgattg	gggccctgct	ggtgtgcagg	gagggcagcc	tggccaagga	2160
gaagaccag	accctgcaca	agttcatcct	gctgtttgct	gtgtttgatg	agggaagag	2220
ctggcactct	gaaaccaaga	acagcctgat	gcaggacagg	gatgctgcct	ctgccagggc	2280
ctggcccaag	atgcacactg	tgaatggcta	tgtgaacagg	agcctgcctg	gcctgattgg	2340
ctgccacagg	aagtctgtgt	actggcatgt	gattggcatg	ggcaccaccc	ctgaggtgca	2400
cagcatcttc	ctggagggcc	acaccttcct	ggtcaggaac	cacaggcagg	ccagcctgga	2460
gatcagcccc	atcaccttcc	tgactgcca	gaccctgctg	atggacctgg	gccagttcct	2520
gctgttctgc	cacatcagca	gccaccagca	tgatggcatg	gaggcctatg	tgaaggtgga	2580
cagctgccct	gaggagcccc	agctgaggat	gaagaacaat	gaggaggctg	aggactatga	2640
tgatgacctg	actgactctg	agatggatgt	ggtgaggttt	gatgatgaca	acagccccag	2700
cttcatccag	atcaggtctg	tggccaagaa	gcaccccaag	acctgggtgc	actacattgc	2760
tgctgaggag	gaggactggg	actatgcccc	cctggtgctg	gcccctgatg	acaggagcta	2820
caagagccag	tacctgaaca	atggccccca	gaggattggc	aggaagtaca	agaaggtcag	2880
gttcatggcc	tacactgatg	aaaccttcaa	gaccagggag	gccatccagc	atgagtctgg	2940
catcctgggc	cccctgctgt	atggggaggt	gggggacacc	ctgctgatca	tcttcaagaa	3000
ccaggccagc	aggccctaca	acatctaccc	ccatggcatc	actgatgtga	ggcccctgta	3060
cagcaggagg	ctgccaagg	gggtgaagca	cctgaaggac	ttcccatcc	tgctgggga	3120
gatcttcaag	tacaagtgga	ctgtgactgt	ggaggatggc	cccaccaagt	ctgaccccag	3180
gtgcctgacc	agatactaca	gcagctttgt	gaacatggag	agggacctgg	cctctggcct	3240
gattggcccc	ctgctgatct	gctacaagga	gtctgtggac	cagaggggca	accagatcat	3300
gtctgacaag	aggaatgtga	tcctgttctc	tgtgtttgat	gagaacagga	gctggtacct	3360
gactgagaac	atccagaggt	tcctgccccaa	ccctgctggg	gtgcagctgg	aggaccctga	3420
gttccaggcc	agcaacatca	tgcacagcat	caatggctat	gtgtttgaca	gcctgcagct	3480
gtctgtgtgc	ctgcatgagg	tggcctactg	gtacatcctg	agcattgggg	cccagactga	3540
cttcctgtct	gtgttcttct	ctggctacac	cttcaagcac	aagatggtgt	atgaggacac	3600

sequencelisting

cctgaccctg ttcccccttct ctggggagac tgtgtttcatg agcatggaga accctggcct	3660
gtggattctg ggctgccaca actctgactt caggaacagg ggcatgactg ccctgctgaa	3720
agtctccagc tgtgacaaga aacttgggga ctactatgag gacagctatg aggacatctc	3780
tgcttacctg ctgagcaaga acaatgccat tgagcccagg agcttcagcc agaaccccc	3840
agtgtgaag aggcaccaga gggagatcac caggaccacc ctgcagtctg accaggagga	3900
gattgactat gatgacacca tctctgtgga gatgaagaag gaggactttg acatctacga	3960
cgaggacgag aaccagagcc ccaggagctt ccagaagaag accaggcact acttcattgc	4020
tgctgtggag aggctgtggg actatggcat gagcagcagc ccccatgtgc tgaggaacag	4080
ggcccagtct ggctctgtgc ccagttcaa gaaggtggtg ttccaggagt tctactgatg	4140
cagcttcacc cagcccctgt acagagggga gctgaatgag cacctgggcc tgctgggccc	4200
ctacatcagg gctgaggtgg aggacaacat catggtgacc ttcaggaacc aggccagcag	4260
gccctacagc ttctacagca gcctgatcag ctatgaggag gaccagaggc agggggctga	4320
gcccaggaag aactttgtga agcccaatga aaccaagacc tacttctgga aggtgcagca	4380
ccacatggcc cccaccaagg atgagtttga ctgcaaggcc tgggcctact tctctgatgt	4440
ggacctggag aaggatgtgc actctggcct gattggcccc ctgctggtgt gccacaccaa	4500
cacctgaac cctgcccagtg gcaggcaggt gactgtgcag gagtttgccc tgttcttcac	4560
catctttgat gaaaccaaga gctggtactt cactgagaac atggagagga actgcagggc	4620
cccctgcaac atccagatgg aggacccac cttcaaggag aactacaggt tccatgccat	4680
caatggctac atcatggaca ccctgcctgg cctggtgatg gcccaggacc agaggatcag	4740
gtggtacctg ctgagcatgg gcagcaatga gaacatccac agcatccact tctctggcca	4800
tgtgttcact gtgaggaaga aggaggagta caagatggcc ctgtacaacc tgtaccctgg	4860
ggtgtttgag actgtggaga tgctgcccag caaggctggc atctggaggg tggagtgcct	4920
gattggggag cacctgcatg ctggcatgag caccctgttc ctggtgtaca gcaacaagt	4980
ccagaccccc ctgggcatgg cctctggcca catcaggagc ttccagatca ctgcctctgg	5040
ccagtatggc cagtgggccc ccaagctggc caggctgcac tactctggca gcatcaatgc	5100
ctggagcacc aaggagccct tcagctggat caaggtggac ctgctggccc ccatgatcat	5160

sequencelisting

ccatggcatc aagaccagg gggccaggca gaagttcagc agcctgtaca tcagccagtt	5220
catcatcatg tacagcctgg atggcaagaa gtggcagacc tacaggggca acagcactgg	5280
caccctgatg gtgttctttg gcaatgtgga cagctctggc atcaagcaca acatcttcaa	5340
cccccccatc attgccagat acatcaggct gcaccccacc cactacagca tcaggagcac	5400
cctgaggatg gagctgatgg gctgtgacct gaacagctgc agcatgcccc tgggcatgga	5460
gagcaaggcc atctctgatg cccagatcac tgccagcagc tacttcacca acatgtttgc	5520
cacctggagc cccagcaagg ccaggctgca cctgcagggc aggagcaatg cctggaggcc	5580
ccaggtcaac aacccaagg agtggctgca ggtggacttc cagaagacca tgaaggtgac	5640
tggggtgacc acccaggggg tgaagagcct gctgaccagc atgtatgtga aggagttcct	5700
gatcagcagc agccaggatg gccaccagtg gaccctgttc ttccagaatg gcaaggtgaa	5760
ggtgttccag ggcaaccagg acagcttcac ccctgtggtg aacagcctgg accccccct	5820
gctgaccaga tacctgagga ttcaccccca gagctgggtg caccagattg ccctgaggat	5880
ggaggtgctg ggctgtgagg cccaggacct gtactgacct cgagctgtgc cttctagttg	5940
ccagccatct gttgtttgcc cctccccctg gccttccttg accctggaag gtgccactcc	6000
cactgtcctt tcctaataaa atgaggaaat tgcatcgcat tgtctgagta ggtgtcattc	6060
tattctgggg ggtggggtgg ggcaggacag caagggggag gattgggaag acaatagcag	6120
gcatgctggg gatgcggtgg gctctatgga ccggtgcggc cgcaggaacc cctagtgatg	6180
gagttggcca ctccctctct gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc	6240
gcccagcgcc cgggctttgc ccgggcggcc tcagtgagcg agcgagcgcg cagagaggga	6300
gtggccaa	6308

<210> 16

<211> 5635

<212> DNA

<213> Adeno-Associate Virus 2

<400> 16

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgccgggc aaagcccggg	60
---	----

cgctgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
--	-----

gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttaattttta aaaagcagtc	180
---	-----

sequencelisting

aaaagtccaa gtggcccttg gcagcattta ctctctctgt ttgctctggt taataatctc	240
aggagcacia acattccttg aggcaggaga agaaatcaac atcctggact tatcctctgg	300
gcctgttaat ttttaaaaag cagtcaaaag tccaagtggc ccttggcagc atttactctc	360
tctgtttgct ctggttaata atctcaggag caciaaacatt cctggaggca ggagaagaaa	420
tcaacatcct ggacttatcc tctgggccta gtcgactgga cacaggacgc tgtggtttct	480
gagccagggg gcgactcaga tcccagccag tggacttagc ccctgtttgc tcctccgata	540
actgggggtga ccttggttaa tattcaccag cagcctcccc cgttgccct ctggatccac	600
tgcttaaata cggacgagga cagggccctg tctcctcagc ttcaggcacc accactgacc	660
tgggacagtg aatcgtaagt actagcagct acaatccagc taccattctg cttttatctt	720
atggttggga taaggctgga ttattctgag tccaagctag gcccttttgc taatcatgtt	780
catacctctt atcttcctcc cacagctcct gggcaacgtg ctggtctgtg tgctggccca	840
tcactttggc aaagaattgc gatcgccacc atgcagattg agctgagcac ctgcttcttc	900
ctgtgcctgc tgaggttctg cttctctgcc accaggagat actacctggg ggctgtggag	960
ctgagctggg actacatgca gtctgacctg ggggagctgc ctgtggatgc caggttcccc	1020
cccagagtgc ccaagagctt ccccttcaac acctctgtgg tgtacaagaa gaccctgttt	1080
gtggagttca ctgaccacct gttcaacatt gccaagccca ggccccctg gatgggcctg	1140
ctgggccccca ccatccaggc tgagggtgtat gacactgtgg tgatcacct gaagaacatg	1200
gccagccacc ctgtgagcct gcatgctgtg ggggtgagct actggaaggc ctctgagggg	1260
gctgagtatg atgaccagac cagccagagg gagaaggagg atgacaaggt gttccctggg	1320
ggcagccaca cctatgtgtg gcagggtgtg aaggagaatg gccccatggc ctctgacccc	1380
ctgtgcctga cctacagcta cctgagccat gtggacctgg tgaaggacct gaactctggc	1440
ctgattgggg ccctgctggt gtgcaggag ggcagcctgg ccaaggagaa gaccagacc	1500
ctgcacaagt tcacctctgt gtttctgtgt tttgatgagg gcaagagctg gcactctgaa	1560
accaagaaca gcctgatgca ggacagggat gctgcctctg ccagggcctg gcccaagatg	1620
cacactgtga atggctatgt gaacaggagc ctgcctggcc tgattggctg ccacaggaag	1680
tctgtgtact ggcatgtgat tggcatgggc accaccctg aggtgcacag catcttcctg	1740

sequencelisting

gagggccaca ccttcctggt caggaaccac aggcaggcca gcctggagat cagccccatc	1800
accttcctga ctgcccagac cctgctgatg gacctgggcc agttcctgct gttctgccac	1860
atcagcagcc accagcatga tggcatggag gcctatgtga aggtggacag ctgccctgag	1920
gagccccagc tgaggatgaa gaacaatgag gaggctgagg actatgatga tgacctgact	1980
gactctgaga tggatgtggt gaggtttgat gatgacaaca gccccagctt catccagatc	2040
aggtctgtgg ccaagaagca cccaagacc tgggtgcact acattgctgc tgaggaggag	2100
gactgggact atgccccct ggtgctggcc cctgatgaca ggagctacaa gagccagtac	2160
ctgaacaatg gccccagag gattggcagg aagtacaaga aggtcaggtt catggcctac	2220
actgatgaaa cttcaagac caggagggcc atccagcatg agtctggcat cctgggcccc	2280
ctgctgtatg gggagggtggg ggacaccctg ctgatcatct tcaagaacca ggccagcagg	2340
ccctacaaca tctaccccc tggcatcact gatgtgaggc ccctgtacag caggaggctg	2400
cccaaggggg tgaagcacct gaaggacttc cccatcctgc ctggggagat cttcaagtac	2460
aagtggactg tgactgtgga ggatggcccc accaagtctg accccagggtg cctgaccaga	2520
tactacagca gctttgtgaa catggagagg gacctggcct ctggcctgat tggccccctg	2580
ctgatctgct acaaggagtc tgtggaccag aggggcaacc agatcatgtc tgacaagagg	2640
aatgtgatcc tgttctctgt gtttgatgag aacaggagct ggtacctgac tgagaacatc	2700
cagaggttcc tgcccaacct tgctgggggtg cagctggagg accctgagtt ccaggccagc	2760
aacatcatgc acagcatcaa tggctatgtg ttgacagcc tgcagctgtc tgtgtgcctg	2820
catgagggtg cctactggta catcctgagc attggggccc agactgactt cctgtctgtg	2880
ttcttctctg gctacacctt caagcacaag atggtgtatg aggacaccct gaccctgttc	2940
cccttctctg gggagactgt gttcatgagc atggagaacc ctggcctgtg gattctgggc	3000
tgccacaact ctgacttcag gaacaggggc atgactgccc tgctgaaagt ctccagctgt	3060
gacaagaaca ctggggacta ctatgaggac agctatgagg acatctctgc ctacctgctg	3120
agcaagaaca atgccattga gcccaggagc ttcagccaga accccccagt gctgaagagg	3180
caccagaggg agatcaccag gaccaccctg cagtctgacc aggaggagat tgactatgat	3240
gacaccatct ctgtggagat gaagaaggag gactttgaca tctacgacga ggacgagaac	3300

sequencelisting

cagagcccca	ggagcttcca	gaagaagacc	aggcactact	tcattgctgc	tgtggagagg	3360
ctgtgggact	atggcatgag	cagcagcccc	catgtgctga	ggaacagggc	ccagtctggc	3420
tctgtgcccc	agttcaagaa	ggtggtgttc	caggagttca	ctgatggcag	cttcacccag	3480
cccctgtaca	gaggggagct	gaatgagcac	ctgggcctgc	tggggccccta	catcagggct	3540
gaggtggagg	acaacatcat	ggtgaccttc	aggaaccagg	ccagcaggcc	ctacagcttc	3600
tacagcagcc	tgatcagcta	tgaggaggac	cagaggcagg	gggctgagcc	caggaagaac	3660
tttgtgaagc	ccaatgaaac	caagacctac	ttctggaagg	tgcagcacca	catggccccc	3720
accaaggatg	agtttgactg	caaggcctgg	gcctacttct	ctgatgtgga	cctggagaag	3780
gatgtgcact	ctggcctgat	tggccccctg	ctggtgtgcc	acaccaacac	cctgaaccct	3840
gcccattggca	ggcaggtgac	tgtgcaggag	tttgccctgt	tcttcaccat	ctttgatgaa	3900
accaagagct	ggtacttcac	tgagaacatg	gagaggaact	gcagggcccc	ctgcaacatc	3960
cagatggagg	accccacctt	caaggagaac	tacaggttcc	atgccatcaa	tggctacatc	4020
atggacaccc	tgccctggcct	ggtgatggcc	caggaccaga	ggatcaggtg	gtacctgctg	4080
agcatgggca	gcaatgagaa	catccacagc	atccacttct	ctggccatgt	gttcactgtg	4140
aggaagaagg	aggagtacaa	gatggccctg	tacaacctgt	accctgggggt	gtttgagact	4200
gtggagatgc	tgcccagcaa	ggctggcatc	tggagggtgg	agtgcctgat	tggggagcac	4260
ctgcatgctg	gcatgagcac	cctgttcctg	gtgtacagca	acaagtgcca	gacccccctg	4320
ggcatggcct	ctggccacat	cagggacttc	cagatcactg	cctctggcca	gtatggccag	4380
tgggccccca	agctggccag	gctgcactac	tctggcagca	tcaatgcctg	gagcaccaag	4440
gagcccttca	gctggatcaa	ggtggacctg	ctggccccca	tgatcatcca	tggcatcaag	4500
accagggggg	ccaggcagaa	gttcagcagc	ctgtacatca	gccagttcat	catcatgtac	4560
agcctggatg	gcaagaagtg	gcagacctac	aggggcaaca	gcactggcac	cctgatggtg	4620
ttctttggca	atgtggacag	ctctggcatc	aagcacaaca	tcttcaaccc	ccccatcatt	4680
gccagatata	tcaggctgca	ccccaccac	tacagcatca	ggagcaccct	gaggatggag	4740
ctgatgggct	gtgacctgaa	cagctgcagc	atggccctgg	gcatggagag	caaggccatc	4800
tctgatgccc	agatcactgc	cagcagctac	ttcaccaaca	tgtttgccac	ctggagcccc	4860

sequencelisting

agcaaggcca ggctgcacct gcagggcagg agcaatgcct ggaggcccca ggtcaacaac	4920
cccaaggagt ggctgcaggt ggacttccag aagaccatga aggtgactgg ggtgaccacc	4980
caggggggtga agagcctgct gaccagcatg tatgtgaagg agttcctgat cagcagcagc	5040
caggatggcc accagtggac cctgttcttc cagaatggca aggtgaaggt gttccagggc	5100
aaccaggaca gcttcacccc tgttggtgaac agcctggacc cccccctgct gaccagatac	5160
ctgaggattc acccccagag ctgggtgcac cagattgccc tgaggatgga ggtgctgggc	5220
tgtgaggccc aggacctgta ctgacctga gctgtgcctt ctagttgcca gccatctgtt	5280
gtttgcccct cccccgtgcc ttccttgacc ctggaagggtg ccactccac tgtcctttcc	5340
taataaaatg aggaaattgc atcgcatgtt ctgagtaggt gtcattctat tctggggggt	5400
ggggtggggc aggacagcaa gggggaggat tgggaagaca atagcaggca tgctggggat	5460
gcggtgggct ctatggaccg gtgcggccgc aggaaccct agtgatggag ttggccactc	5520
cctctctgcg cgctcgctcg ctactgagg ccgggcgacc aaaggtcgcc cgacgcccgg	5580
gctttgcccg ggcggcctca gtgagcgagc gagcgcgag agagggagtg gccaa	5635

<210> 17
 <211> 6962
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 17 ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgta ggctcagagg cacacaggag	180
tttctgggct caccctgccc ctttccaacc cctcagttcc catcctccag cagctgtttg	240
tgtgctgcct ctgaagtcca cactgaacaa acttcagcct actcatgtcc ctaaaatggg	300
caaacattgc aagcagcaaa cagcaaacac acagccctcc ctgcctgctg accttgagac	360
tggggcagag gtcagagacc tctctgggcc catgccacct ccaacatcca ctcgaccct	420
tgggaatttcg gtggagagga gcagagggtg tcctggcgtg gtttaggtag tgtgagaggg	480
gtcgacaggc tcagaggcac acaggagttt ctgggctcac cctgccccct tccaaccct	540

sequencelisting

cagttcccat cctccagcag ctgtttgtgt gctgcctctg aagtccacac tgaacaaact	600
tcagcctact catgtcccta aaatgggcaa acattgcaag cagcaaacag caaacacaca	660
gccctccctg cctgctgacc ttggagctgg ggcagaggctc agagacctct ctgggcccat	720
gccacctcca acatccactc gacccttgg aatttcggtg gagaggagca gaggttgtcc	780
tggcgtgggt taggtagtgt gagaggggtc gacgttaatt tttaaaaagc agtcaaaagt	840
ccaagtggcc cttggcagca ttactctct ctgtttgctc tggttaataa tctcaggagc	900
acaaacattc ctggaggcag gagaagaaat caacatcctg gacttatcct ctgggcctgt	960
taatttttaa aaagcagtca aaagtccaag tggcccttgg cagcatttac tctctctgtt	1020
tgctctgggt aataatctca ggagcacaaa cattcctgga ggcaggagaa gaaatcaaca	1080
tcctggactt atcctctggg cctaggcctg aggctggtca aaattgaacc tcctcctgct	1140
ctgagcagcc tggggggcag actaagcaga gggctgtgca gaccacata aagagcctac	1200
tgtgtgccag gcacttcacc cgaggcactt cacaagcatg cttgggaatg aaacttccaa	1260
ctctttggga tgcaggtgaa acagttcctg gttcagagag gtgaagcggc ctgcctgagg	1320
cagcacagct cttctttaca gatgtgcttc cccacctcta ccctgtctca cggcccccca	1380
tgccagcctg acggttgtgt ctgcctcagt catgctccat ttttccatcg ggaccatcaa	1440
gagggtgttt gtgtctaagg ctgactgggt aactttggat gagcgggtctc tccgctctga	1500
gcctgtttcc tcatctgtca aatgggctct aaccactct gatctcccag ggcggcagta	1560
agtcttcagc atcaggcatt ttggggtgac tcagtaaagtg gtagatcttg ctaccagtgg	1620
aacagccact aaggattctg cagtgaagc agagggccag ctaagtggta ctctcccaga	1680
gactgtctga ctcacgccac cccctccacc ttggacacag gacgctgtgg tttctgagcc	1740
aggtacaatg actcctttcg gtaagtgcag tgggaagctgt acactgccca ggcaaagcgt	1800
ccgggcagcg taggcgggcg actcagatcc cagccagtgg acttagcccc tgtttgctcc	1860
tccgataact ggggtgacct tggttaatat tcaccagcag cctccccctg tgcccctctg	1920
gatccactgc ttaaatacgg acgaggacag ggccctgtct cctcagcttc aggcaccacc	1980
actgacctgg gacagtgaat cgtaagtact agcagctaca atccagctac cattctgctt	2040
ttattttatg gttgggataa ggctggatta ttctgagtcc aagctaggcc cttttgctaa	2100

sequencelisting						
tcatgttcat	acctcttatc	ttcctccac	agctcctggg	caacgtgctg	gtctgtgtgc	2160
tggcccatca	ctttggcaaa	gaattgcat	cgccaccatg	cagattgagc	tgagcacctg	2220
cttcttcctg	tgctgtgta	ggttctgctt	ctctgccacc	aggagatact	acctgggggc	2280
tgtggagctg	agctgggact	acatgcagtc	tgacctgggg	gagctgcctg	tggatgccag	2340
gttccccccc	agagtggcca	agagcttccc	cttcaacacc	tctgtggtgt	acaagaagac	2400
cctgtttgtg	gagttcactg	accacctgtt	caacattgcc	aagcccaggc	ccccctggat	2460
gggcctgctg	ggccccacca	tccaggctga	ggtgtatgac	actgtggtga	tcacctgaa	2520
gaacatggcc	agccaccctg	tgagcctgca	tgctgtgggg	gtgagctact	ggaaggcctc	2580
tgagggggct	gagtatgatg	accagaccag	ccagaggagg	aaggaggatg	acaaggtgtt	2640
ccctgggggc	agccacacct	atgtgtggca	ggtgctgaag	gagaatggcc	ccatggcctc	2700
tgacccccctg	tgctgacct	acagctacct	gagccatgtg	gacctggtga	aggacctgaa	2760
ctctggcctg	attggggccc	tgctggtgtg	caggaggaggc	agcctggcca	aggagaagac	2820
ccagaccctg	cacaagttca	tcctgctgtt	tgctgtgttt	gatgagggca	agagctggca	2880
ctctgaaacc	aagaacagcc	tgatgcagga	cagggatgct	gcctctgcca	gggcctggcc	2940
caagatgcac	actgtgaatg	gctatgtgaa	caggagcctg	cctggcctga	ttggctgcca	3000
caggaagtct	gtgtactggc	atgtgattgg	catgggcacc	accctgagg	tgcacagcat	3060
cttcctggag	ggccacacct	tcctggtcag	gaaccacagg	caggccagcc	tggagatcag	3120
ccccatcacc	ttcctgactg	cccagaccct	gctgatggac	ctgggccagt	tcctgctgtt	3180
ctgccacatc	agcagccacc	agcatgatgg	catggaggcc	tatgtgaagg	tggacagctg	3240
ccctgaggag	ccccagctga	ggatgaagaa	caatgaggag	gctgaggact	atgatgatga	3300
cctgactgac	tctgagatgg	atgtggtgag	gtttgatgat	gacaacagcc	ccagcttcat	3360
ccagatcagg	tctgtggcca	agaagcacc	caagacctgg	gtgcactaca	ttgctgctga	3420
ggaggaggac	tgggactatg	ccccctgggt	gctggcccct	gatgacagga	gctacaagag	3480
ccagtacctg	aacaatggcc	cccagaggat	tggcaggaag	tacaagaagg	tcaggttcat	3540
ggcctacact	gatgaaacct	tcaagaccag	ggaggccatc	cagcatgagt	ctggcatcct	3600
gggccccctg	ctgtatgggg	aggtggggga	caccctgctg	atcatcttca	agaaccaggc	3660

sequencelisting						
cagcaggccc	tacaacatct	acccccatgg	catcactgat	gtgaggcccc	tgtacagcag	3720
gaggctgccc	aaggggggtga	agcacctgaa	ggacttcccc	atcctgcctg	gggagatctt	3780
caagtacaag	tggactgtga	ctgtggagga	tggccccacc	aagtctgacc	ccaggtgcct	3840
gaccagatac	tacagcagct	ttgtgaacat	ggagaggggac	ctggcctctg	gcctgattgg	3900
ccccctgctg	atctgctaca	aggagtctgt	ggaccagagg	ggcaaccaga	tcatgtctga	3960
caagaggaat	gtgatcctgt	tctctgtgtt	tgatgagaac	aggagctggt	acctgactga	4020
gaacatccag	aggttcctgc	ccaaccctgc	tgggggtgcag	ctggaggacc	ctgagttcca	4080
ggccagcaac	atcatgcaca	gcatcaatgg	ctatgtgttt	gacagcctgc	agctgtctgt	4140
gtgcctgcat	gaggtggcct	actggtacat	cctgagcatt	ggggcccaga	ctgacttcct	4200
gtctgtgttc	ttctctggct	acaccttcaa	gcacaagatg	gtgtatgagg	acaccctgac	4260
cctgttcccc	ttctctgggg	agactgtgtt	catgagcatg	gagaaccctg	gcctgtggat	4320
tctgggctgc	cacaactctg	acttcaggaa	caggggcatg	actgccctgc	tgaaagtctc	4380
cagctgtgac	aagaacactg	gggactacta	tgaggacagc	tatgaggaca	tctctgccta	4440
cctgctgagc	aagaacaatg	ccattgagcc	caggagcttc	agccagaacc	ccccagtgct	4500
gaagaggcac	cagagggaga	tcaccaggac	caccctgcag	tctgaccagg	aggagattga	4560
ctatgatgac	accatctctg	tggagatgaa	gaaggaggac	tttgacatct	acgacgagga	4620
cgagaaccag	agccccagga	gcttccagaa	gaagaccagg	cactacttca	ttgctgctgt	4680
ggagaggctg	tgggactatg	gcatgagcag	cagcccccat	gtgctgagga	acagggccca	4740
gtctggctct	gtgccccagt	tcaagaaggt	ggtgtttccag	gagttcactg	atggcagctt	4800
caccagccc	ctgtacagag	gggagctgaa	tgagcacctg	ggcctgctgg	gccctacat	4860
cagggtgag	gtggaggaca	acatcatggt	gaccttcagg	aaccaggcca	gcaggcccta	4920
cagcttctac	agcagcctga	tcagctatga	ggaggaccag	aggcaggggg	ctgagcccag	4980
gaagaacttt	gtgaagccca	atgaaaccaa	gacctacttc	tggaaggtgc	agcaccacat	5040
ggccccacc	aaggatgagt	ttgactgcaa	ggcctggggc	tacttctctg	atgtggacct	5100
ggagaaggat	gtgcactctg	gcctgattgg	ccccctgctg	gtgtgccaca	ccaacaccct	5160
gaaccctgcc	catggcaggc	aggtgactgt	gcaggagttt	gccctgttct	tcaccatctt	5220

sequencelisting

tgatgaaacc aagagctggc acttcactga gaacatggag aggaactgca gggccccctg	5280
caacatccag atggaggacc ccaccttcaa ggagaactac aggttccatg ccatcaatgg	5340
ctacatcatg gacaccctgc ctggcctggc gatggcccag gaccagagga tcaggtggta	5400
cctgctgagc atgggcagca atgagaacat ccacagcatc cacttctctg gccatgtgtt	5460
cactgtgagg aagaaggagg agtacaagat ggccctgtac aacctgtacc ctgggggtgtt	5520
tgagactgtg gagatgctgc ccagcaaggc tggcatctgg aggggtggagt gcctgattgg	5580
ggagcacctg catgctggca tgagcacctt gttcctgggtg tacagcaaca agtgccagac	5640
ccccctgggc atggcctctg gccacatcag ggacttccag atcactgcct ctggccagta	5700
tggccagtgg gcccacaagc tggccaggct gcactactct ggccagcatc atgcctggag	5760
caccaaggag cccttcagct ggatcaaggc ggacctgctg gcccctatga tcatccatgg	5820
catcaagacc cagggggcca ggcagaagtt cagcagcctg tacatcagcc agttcatcat	5880
catgtacagc ctggatggca agaagtggca gacctacagg ggcaacagca ctggcacctt	5940
gatggtgttc tttggcaatg tggacagctc tggcatcaag cacaacatct tcaaccccc	6000
catcattgcc agatacatca ggctgcaccc caccactac agcatcagga gcaccctgag	6060
gatggagctg atgggctgtg acctgaacag ctgcagcatg cccctgggca tggagagcaa	6120
ggccatctct gatgcccaga tcatgccag cagctacttc accaacaagt ttgccacctg	6180
gagccccagc aaggccaggc tgcacctgca gggcaggagc aatgcctgga ggccccaggt	6240
caacaacccc aaggagtggc tgcaggtgga cttccagaag accatgaagg tgactggggc	6300
gaccacccag ggggtgaaga gcctgctgac cagcatgtat gtgaaggagt tcctgatcag	6360
cagcagccag gatggccacc agtggaccct gttcttccag aatggcaagg tgaagggtgtt	6420
ccagggaac caggacagct tcacccctgt ggtgaacagc ctggaccccc ccctgctgac	6480
cagatacctg aggattcacc cccagagctg ggtgcaccag attgccctga ggatggaggc	6540
gctgggctgt gaggcccagg acctgtactg acctcagct gtgccttcta gttgccagcc	6600
atctgttgtt tgcccctccc ccgtgccttc cttgaccctg gaagggtgca ctcccactgt	6660
cctttcctaa taaaatgagg aaattgcac gcattgtctg agtaggtgtc attctattct	6720
gggggggtggg gtggggcagg acagcaaggg ggaggattgg gaagacaata gcaggcatgc	6780

sequencelisting

tggggatgcg gtgggctcta tggaccggtg cggccgcagg aaccctagt gatggagttg	6840
gccactccct ctctgcgcgc tcgctcgtc actgaggccg ggcgaccaa ggtcgcccga	6900
cggccgggct ttggccgggc ggcctcagtg agcgagcgag cgcgcagaga gggagtggcc	6960
aa	6962

<210> 18
 <211> 6289
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 18	
ttggccactc cctctctgcg cgctcgtcgt ctcactgagg ccgcccgggc aaagcccggg	60
cgctggggcga cctttggctc cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgta ggctcagagg cacacaggag	180
tttctgggct caccctgccc ctttccaacc cctcagttcc catcctccag cagctgtttg	240
tgtgctgcct ctgaagtcca cactgaacaa acttcagcct actcatgtcc ctaaaatggg	300
caaacattgc aagcagcaaa cagcaaacac acagccctcc ctgcctgctg accttgagac	360
tggggcagag gtcagagacc tctctgggcc catgccacct ccaacatcca ctcgaccctt	420
tggaatttcg gtggagagga gcagaggttg tcctggcgtg gtttaggtag tgtgagaggg	480
gtcgacaggc tcagaggcac acaggagttt ctgggctcac cctgccccct tccaaccctt	540
cagttcccat cctccagcag ctgtttgtgt gctgcctctg aagtccacac tgaacaaact	600
tcagcctact catgtcccta aaatgggcaa acattgcaag cagcaaacag caaacacaca	660
gccctccctg cctgctgacc ttggagctgg ggcagaggtc agagacctct ctggggccat	720
gccacctcca acatccactc gacccttgga aatttcggtg gagaggagca gaggttgtcc	780
tggcgtgggt taggtagtgt gagaggggtc gacgttaatt tttaaaaagc agtcaaaagt	840
ccaagtggcc cttggcagca ttactctct ctgtttgctc tggttaataa tctcaggagc	900
acaaacattc ctggaggcag gagaagaaat caacatcctg gacttatcct ctgggcctgt	960
taatttttaa aaagcagtca aaagtccaag tggcccttgg cagcatttac tctctctgtt	1020
tgctctgggt aataatctca ggagcacaaa cattcctgga ggcaggagaa gaaatcaaca	1080
tcctggactt atcctctggg cctagtcgac tggacacagg acgctgtggt ttctgagcca	1140

sequencelisting

gggggcgact	cagatcccag	ccagtggact	tagcccctgt	ttgctcctcc	gataactggg	1200
gtgaccttgg	ttaatatcca	ccagcagcct	cccccgttgc	ccctctggat	ccactgctta	1260
aatacggacg	aggacagggc	cctgtctcct	cagcttcagg	caccaccact	gacctgggac	1320
agtgaatcgt	aagtactagc	agctacaatc	cagctaccat	tctgctttta	ttttatggtt	1380
gggataaggc	tggattattc	tgagtccaag	ctaggccctt	ttgctaatac	tgttcatacc	1440
tcttatcttc	ctcccacagc	tcctgggcaa	cgtgctggtc	tgtgtgctgg	cccatcactt	1500
tggcaaagaa	ttgcgatcgc	caccatgcag	attgagctga	gcacctgctt	cttcctgtgc	1560
ctgctgaggt	tctgcttctc	tgccaccagg	agatactacc	tgggggctgt	ggagctgagc	1620
tgggactaca	tgcagtctga	cctggggggag	ctgcctgtgg	atgccagggt	cccccccaga	1680
gtgccaaga	gcttcccctt	caacacctct	gtggtgtaca	agaagaccct	gtttgtggag	1740
ttcactgacc	acctgttcaa	cattgccaaag	cccaggcccc	cctggatggg	cctgctgggc	1800
cccaccatcc	aggctgaggt	gtatgacact	gtggtgatca	ccctgaagaa	catggccagc	1860
cacctgtga	gcctgcatgc	tgtgggggtg	agctactgga	aggcctctga	gggggctgag	1920
tatgatgacc	agaccagcca	gagggagaag	gaggatgaca	aggtgtttcc	tgggggcagc	1980
cacacctatg	tgtggcaggt	gctgaaggag	aatggcccca	tggcctctga	ccccctgtgc	2040
ctgacctaca	gctacctgag	ccatgtggac	ctggtgaagg	acctgaactc	tggcctgatt	2100
ggggccctgc	tgggtgtcag	ggagggcagc	ctggccaagg	agaagacca	gaccctgcac	2160
aagttcatcc	tgctgtttgc	tgtgtttgat	gagggcaaga	gctggcactc	tgaaaccaag	2220
aacagcctga	tgacaggacg	ggatgctgcc	tctgccaggg	cctggcccaa	gatgcacact	2280
gtgaatggct	atgtgaacag	gagcctgcct	ggcctgattg	gctgccacag	gaagtctgtg	2340
tactggcatg	tgattggcat	gggcaccacc	cctgaggtgc	acagcatctt	cctggagggc	2400
cacaccttcc	tggtcaggaa	ccacaggcag	gccagcctgg	agatcagccc	catcaccttc	2460
ctgactgccc	agaccctgct	gatggacctg	ggccagttcc	tgctgtttctg	ccacatcagc	2520
agccaccagc	atgatggcat	ggaggcctat	gtgaagggtg	acagctgccc	tgaggagccc	2580
cagctgagga	tgaagaacaa	tgaggaggct	gaggactatg	atgatgacct	gactgactct	2640
gagatggatg	tggtgaggtt	tgatgatgac	aacagcccca	gcttcatcca	gatcaggtct	2700

sequencelisting

gtggccaaga agcaccccaa gacctgggtg cactacattg ctgctgagga ggaggactgg	2760
gactatgccc ccctgggtgct ggcccctgat gacaggagct acaagagcca gtacctgaac	2820
aatggccccc agaggattgg caggaagtac aagaaggtca ggttcatggc ctacactgat	2880
gaaaccttca agaccaggga ggccatccag catgagtctg gcatcctggg cccctgctg	2940
tatggggagg tgggggacac cctgctgata atcttcaaga accaggccag caggccctac	3000
aacatctacc cccatggcat cactgatgtg aggcccctgt acagcaggag gctgcccag	3060
ggggtgaagc acctgaagga cttcccatc ctgcctgggg agatcttcaa gtacaagtgg	3120
actgtgactg tggaggatgg cccaccaag tctgaccca ggtgcctgac cagatactac	3180
agcagctttg tgaacatgga gagggacctg gcctctggcc tgattggccc cctgctgata	3240
tgctacaagg agtctgtgga ccagaggggc aaccagatca tgtctgacaa gaggaatgtg	3300
atcctgttct ctgtgtttga tgagaacagg agctggtacc tgactgagaa catccaggag	3360
ttcctgcca accctgctgg ggtgcagctg gaggaccctg agttccaggc cagcaacatc	3420
atgcacagca tcaatggcta tgtgtttgac agcctgcagc tgtctgtgtg cctgcatgag	3480
gtggcctact ggtacatcct gagcattggg gccagactg acttcctgtc tgtgttcttc	3540
tctggctaca cttcaagca caagatggtg tatgaggaca ccctgaccct gttccccttc	3600
tctggggaga ctgtgttcat gagcatggag aaccctggcc tgtggattct gggctgccac	3660
aactctgact tcaggaacag gggcatgact gccctgctga aagtctccag ctgtgacaag	3720
aacactgggg actactatga ggacagctat gaggacatct ctgcctacct gctgagcaag	3780
aacaatgcca ttgagcccag gagcttcagc cagaaccccc cagtgtgaa gaggcaccag	3840
agggagatca ccaggaccac cctgcagtct gaccaggagg agattgacta tgatgacacc	3900
atctctgtgg agatgaagaa ggaggacttt gacatctacg acgaggacga gaaccagagc	3960
cccaggagct tccagaagaa gaccaggcac tacttcattg ctgctgtgga gaggctgtgg	4020
gactatggca tgagcagcag ccccatgtg ctgaggaaca gggcccagtc tggctctgtg	4080
ccccagttca agaaggtggt gttccaggag ttactgatg gcagcttcac ccagcccctg	4140
tacagagggg agctgaatga gcacctgggc ctgctgggcc cctacatcag ggctgaggtg	4200
gaggacaaca tcatggtgac cttcaggaac caggccagca ggccctacag cttctacagc	4260

sequencelisting

agcctgatca gctatgagga ggaccagagg cagggggctg agcccaggaa gaactttgtg	4320
aagcccaatg aaaccaagac ctacttctgg aaggtgcagc accacatggc cccaccaag	4380
gatgagtttg actgcaaggc ctgggcctac ttctctgatg tggacctgga gaaggatgtg	4440
cactctggcc tgattggccc cctgctggtg tgccacacca acaccctgaa ccctgccc	4500
ggcaggcagg tgactgtgca ggagtttgcc ctgttcttca ccatctttga tgaaaccaag	4560
agctgggtact tcactgagaa catggagagg aactgcaggg cccctgcaa catccagatg	4620
gaggaccca ccttcaagga gaactacagg ttccatgcca tcaatggcta catcatggac	4680
accctgcctg gcctgggtgat ggcccaggac cagaggatca ggtgggtacct gctgagcatg	4740
ggcagcaatg agaacatcca cagcatccac ttctctggcc atgtgttcac tgtgaggaag	4800
aaggaggagt acaagatggc cctgtacaac ctgtaccctg gggtgtttga gactgtggag	4860
atgctgcca gcaaggctgg catctggagg gtggagtgcc tgattgggga gcacctgcat	4920
gctggcatga gcacctgtt cctgggtgtac agcaacaagt gccagacccc cctgggcatg	4980
gcctctggcc acatcaggga cttccagatc actgcctctg gccagtatgg ccagtgggcc	5040
cccaagctgg ccaggctgca ctactctggc agcatcaatg cctggagcac caaggagccc	5100
ttcagctgga tcaaggtgga cctgctggcc cccatgatca tccatggcat caagaccag	5160
ggggccaggc agaagttcag cagcctgtac atcagccagt tcatcatcat gtacagcctg	5220
gatggcaaga agtggcagac ctacaggggc aacagcactg gcacctgat ggtgttcttt	5280
ggcaatgtgg acagctctgg catcaagcac aacatcttca acccccccatt cattgccaga	5340
tacatcaggc tgcacccac ccactacagc atcaggagca ccctgaggat ggagctgatg	5400
ggctgtgacc tgaacagctg cagcatgccc ctgggcatgg agagcaaggc catctctgat	5460
gccagatca ctgccagcag ctacttcacc aacatgtttg ccacctggag cccagcaag	5520
gccaggctgc acctgcaggg caggagcaat gcctggaggc cccaggtcaa caacccaag	5580
gagtggctgc aggtggactt ccagaagacc atgaaggtga ctggggtgac caccagggg	5640
gtgaagagcc tgctgaccag catgtatgtg aaggagtcc tgatcagcag cagccaggat	5700
ggccaccagt ggacctgtt cttccagaat ggcaaggtga aggtgttcca gggcaaccag	5760
gacagcttca cccctgtggt gaacagcctg gaccccccc tgctgaccag atacctgagg	5820

sequencelisting

attcaccccc agagctgggt gcaccagatt gccctgagga tggaggtgct gggctgtgag	5880
gcccaggacc tgtactgacc tcgagctgtg ctttctagtt gccagccatc tgttgtttgc	5940
ccctcccccg tgccttcctt gaccctggaa ggtgccactc ccactgtcct ttcctaataa	6000
aatgaggaaa ttgcatcgca ttgtctgagt aggtgtcatt ctattctggg ggggtggggtg	6060
gggcaggaca gcaaggggga ggattgggaa gacaatagca ggcatgctgg ggatgcgggtg	6120
ggctctatgg accggtgcgg ccgcaggaac ccctagtgat ggagttggcc actccctctc	6180
tgcgcgctcg ctcgctcact gaggccgggc gaccaaaggt cgcccgacgc ccgggccttg	6240
cccgggcggc ctcagtgagc gagcgagcgc gcagagaggg agtggccaa	6289

<210> 19
 <211> 5430
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 19 ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga ctttggctcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgacgt ggacttagcc	180
cctgtttgct cctccgataa ctggggtgac cttgggttaat attcaccagc agcctccccg	240
tggacttagc ccctgtttgc tcctccgata actggggtga ctttgggttaa tattcaccag	300
cagcctcccc acgcgaaacg tcgactggac acaggacgct gtggtttctg agccaggggg	360
cgactcagat ccagccagt ggacttagcc cctgtttgct cctccgataa ctggggtgac	420
cttgggttaat attcaccagc agcctcccc gttgccctc tggatccact gcttaaatac	480
ggacgaggac agggccctgt ctctcagct tcaggcacca ccactgacct gggacagtga	540
atcgtaagta ctagcagcta caatccagct accattctgc ttttatttta tggttgggat	600
aaggctggat tattctgagt ccaagctagg cccttttgct aatcatgttc atacctctta	660
tcttcctccc acagctcctg ggcaacgtgc tggctctgtgt gctggcccat cactttggca	720
aagaattgcg atcgccacca tgcagattga gctgagcacc tgcttcttcc tgtgcctgct	780
gaggttctgc ttctctgcca ccaggagata ctacctgggg gctgtggagc tgagctggga	840

sequencelisting

ctacatgcag tctgacctgg gggagctgcc tgtggatgcc aggttcccc ccagagtgcc	900
caagagcttc cccttcaaca cctctgtggt gtacaagaag accctgtttg tggagttcac	960
tgaccacctg ttcaacattg ccaagcccag gccccctgg atgggcctgc tgggccccac	1020
catccaggct gaggtgtatg aactgtggt gatcacctg aagaacatgg ccagccaccc	1080
tgtgagcctg catgctgtgg gggtgagcta ctggaaggcc tctgaggggg ctgagtatga	1140
tgaccagacc agccagaggg agaaggagga tgacaagggt ttccctgggg gcagccacac	1200
ctatgtgtgg caggtgctga aggagaatgg ccccatggcc tctgaccccc tgtgcctgac	1260
ctacagctac ctgagccatg tggacctggt gaaggacctg aactctggcc tgattggggc	1320
cctgctggtg tgcagggagg gcagcctggc caaggagaag acccagacc tgcacaagtt	1380
catcctgctg tttgctgtgt ttgatgaggg caagagctgg cactctgaaa ccaagaacag	1440
cctgatgcag gacagggatg ctgcctctgc cagggcctgg cccaagatgc aactgtgaa	1500
tggctatgtg aacaggagcc tgcctggcct gattggctgc cacaggaagt ctgtgtactg	1560
gcatgtgatt ggcatgggca ccaccctga ggtgcacagc atcttcctgg agggccacac	1620
cttcctggtc aggaaccaca ggcaggccag cctggagatc agcccatca cttcctgac	1680
tgcccagacc ctgctgatgg acctgggcca gttcctgctg ttctgccaca tcagcagcca	1740
ccagcatgat ggcatggagg cctatgtgaa ggtggacagc tgccctgagg agccccagct	1800
gaggatgaag aacaatgagg aggctgagga ctatgatgat gacctgactg actctgagat	1860
ggatgtggtg aggtttgatg atgacaacag cccagcttc atccagatca ggtctgtggc	1920
caagaagcac cccaagacct ggggtgacta cattgctgct gaggaggagg actgggacta	1980
tgccccctg gtgctggccc ctgatgacag gagctacaag agccagtacc tgaacaatgg	2040
ccccagagg attggcagga agtacaagaa ggtcaggttc atggcctaca ctgatgaaac	2100
cttcaagacc agggaggcca tccagcatga gtctggcatc ctgggcccc tgctgtatgg	2160
ggaggtgggg gacaccctgc tgatcatctt caagaaccag gccagcaggc cctacaacat	2220
ctacccccat ggcactactg atgtgaggcc cctgtacagc aggaggctgc ccaagggggt	2280
gaagcacctg aaggacttcc ccatcctgcc tggggagatc ttcaagtaca agtggactgt	2340
gactgtggag gatggcccca ccaagtctga cccaggtgc ctgaccagat actacagcag	2400

sequencelisting						
ctttgtgaac	atggagaggg	acctggcctc	tggcctgatt	ggccccctgc	tgatctgcta	2460
caaggagtct	gtggaccaga	ggggcaacca	gatcatgtct	gacaagagga	atgtgacacct	2520
gttctctgtg	tttcatgaga	acaggagctg	gtacctgact	gagaacatcc	agaggttcct	2580
gccaaccct	gctgggggtgc	agctggagga	ccctgagttc	caggccagca	acatcatgca	2640
cagcatcaat	ggctatgtgt	ttgacagcct	gcagctgtct	gtgtgcctgc	atgagggtggc	2700
ctactggtac	atcctgagca	ttggggccca	gactgacttc	ctgtctgtgt	tcttctctgg	2760
ctacaccttc	aagcacaaga	tggtgtatga	ggacaccctg	accctgttcc	ccttctctgg	2820
ggagactgtg	ttcatgagca	tggagaaccc	tggcctgtgg	attctgggct	gccacaactc	2880
tgacttcagg	aacaggggca	tgactgccct	gctgaaagtc	tccagctgtg	acaagaacac	2940
tggggactac	tatgaggaca	gctatgagga	catctctgcc	tacctgctga	gcaagaacaa	3000
tgccattgag	cccaggagct	tcagccagaa	ccccccagtg	ctgaagaggc	accagaggga	3060
gatcaccagg	accaccctgc	agtctgacca	ggaggagatt	gactatgatg	acaccatctc	3120
tgtggagatg	aagaaggagg	actttgacat	ctacgacgag	gacgagaacc	agagccccag	3180
gagcttccag	aagaagacca	ggcactactt	cattgctgct	gtggagaggc	tgtgggacta	3240
tggcatgagc	agcagcccc	atgtgctgag	gaacagggcc	cagtctggct	ctgtgcccc	3300
gttcaagaag	gtggtgttcc	aggagttcac	tgatggcagc	ttcaccagc	ccctgtacag	3360
aggggagctg	aatgagcacc	tgggcctgct	ggggccctac	atcagggtg	aggtggagga	3420
caacatcatg	gtgaccttca	ggaaccaggc	cagcaggccc	tacagcttct	acagcagcct	3480
gatcagctat	gaggaggacc	agaggcaggg	ggctgagccc	aggaagaact	ttgtgaagcc	3540
caatgaaacc	aagacctact	tctggaaggt	gcagcaccac	atggccccca	ccaaggatga	3600
gtttgactgc	aaggcctggg	cctacttctc	tgatgtggac	ctggagaagg	atgtgcactc	3660
tggcctgatt	ggccccctgc	tggtgtgcca	caccaacacc	ctgaaccctg	cccatggcag	3720
gcaggtgact	gtgcaggagt	ttgccctgtt	cttcaccatc	tttgatgaaa	ccaagagctg	3780
gtacttcact	gagaacatgg	agaggaactg	cagggccccc	tgcaacatcc	agatggagga	3840
ccccaccttc	aaggagaact	acaggttcca	tgccatcaat	ggctacatca	tggacaccct	3900
gcctggcctg	gtgatggccc	aggaccagag	gatcagggtg	tacctgctga	gcatgggcag	3960

sequencelisting

caatgagaac atccacagca tccactttctc tggccatgtg ttcactgtga ggaagaagga	4020
ggagtacaag atggccctgt acaacctgta ccctgggggtg tttgagactg tggagatgct	4080
gcccagcaag gctggcatct ggagggtgga gtgcctgatt ggggagcacc tgcattgctgg	4140
catgagcacc ctgttcctgg tgtacagcaa caagtgccag acccccctgg gcatggcctc	4200
tggccacatc agggacttcc agatcactgc ctctggccag tatggccagt gggcccccaa	4260
gctggccagg ctgcactact ctggcagcat caatgcctgg agcaccaagg agcccttcag	4320
ctggatcaag gtggacctgc tggcccccat gatcatccat ggcatcaaga cccagggggc	4380
caggcagaag ttcagcagcc tgtacatcag ccagttcatc atcatgtaca gcctggatgg	4440
caagaagtgg cagacctaca ggggcaacag cactggcacc ctgatggtgt tctttggcaa	4500
tgtggacagc tctggcatca agcacaacat cttcaacccc cccatcattg ccagatacat	4560
caggctgcac cccaccact acagcatcag gagcaccctg aggatggagc tgatgggctg	4620
tgacctgaac agctgcagca tgcccctggg catggagagc aaggccatct ctgatgccc	4680
gatcactgcc agcagctact tcaccaacat gtttgccacc tggagcccca gcaaggccag	4740
gctgcacctg cagggcagga gcaatgcctg gaggccccag gtcaacaacc ccaaggagt	4800
gctgcaggtg gacttccaga agaccatgaa ggtgactggg gtgaccacc aggggggtgaa	4860
gagcctgctg accagcatgt atgtgaagga gttcctgatc agcagcagcc aggatggcca	4920
ccagtggacc ctgttcttcc agaattggcaa ggtgaagggtg ttccagggca accaggacag	4980
cttcaccct gtggtgaaca gcctggacc cccctgctg accagatacc tgaggattca	5040
ccccagagc tgggtgcacc agattgccct gaggatggag gtgctgggct gtgaggccca	5100
ggacctgtac tgacctcgag gcactgtcct ttcctaataa aatgaggaaa ttgcatcgca	5160
ttgtctgagt aggtgtcatt ctattctggg ggggtggggtg gggcaggaca gcaaggggga	5220
ggattgggaa gacaatagca ggcatgctgg ggatgcggtg ggctctatgg gcacgtggcg	5280
gccgcaggaa cccctagtga tggagttggc cactccctct ctgcgcgctc gctcgctcac	5340
tgaggccggg cgaccaaagg tcgcccgcg cccgggcttt gcccgggcgg cctcagttag	5400
cgagcgagcg cgagagagg gaggggccaa	5430

sequencelisting

<211> 5779

<212> DNA

<213> Adeno-Associated Virus 2

<400> 20

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgacgt ggacttagcc	180
cctgtttgct cctccgataa ctgggggtgac cttgggttaat attcaccagc agcctccccg	240
tggacttagc ccctgtttgc tcctccgata actgggggtga ctttggttaa tattcaccag	300
cagcctcccc acgcgaaacg tcgactggac acaggacgt gtggtttctg agccaggggg	360
cgactcagat ccagccagt ggacttagcc cctgtttgct cctccgataa ctgggggtgac	420
cttggttaat attcaccagc agcctcccc gttgccctc tggatccact gcttaaatac	480
ggacgaggac agggccctgt ctctcagct tcaggcacca ccactgacct gggacagtga	540
atcgtaagta ctagcagcta caatccagct accattctgc ttttatttta tggttgggat	600
aaggctggat tattctgagt ccaagctagg cccttttgct aatcatgttc atacctctta	660
tcttcctccc acagctcctg ggcaacgtgc tggctctgtg gctggcccat cactttggca	720
aagaattgcg atcgccacca tgcagattga gctgagcacc tgcttcttcc tgtgcctgct	780
gaggttctgc ttctctgcca ccaggagata ctacctgggg gctgtggagc tgagctggga	840
ctacatgcag tctgacctgg gggagctgcc tgtggatgcc aggttcccc ccagagtgcc	900
caagagcttc cccttcaaca cctctgtggt gtacaagaag accctgtttg tggagttcac	960
tgaccacctg ttcaacattg ccaagcccag gccccctgg atgggcctgc tgggccccac	1020
catccaggct gaggtgtatg aactgtggt gatcacctg aagaacatgg ccagccaccc	1080
tgtgagcctg catgctgtgg gggtagctga ctggaaggcc tctgaggggg ctgagtatga	1140
tgaccagacc agccagaggg agaaggagga tgacaaggtg ttccctgggg gcagccacac	1200
ctatgtgtgg caggtgctga aggagaatgg ccccatggcc tctgaccccc tgtgcctgac	1260
ctacagctac ctgagccatg tggacctggt gaaggacctg aactctggcc tgattggggc	1320
cctgctggtg tgcagggagg gcagcctggc caaggagaag acccagacc tgcacaagtt	1380
catcctgctg tttgctgtgt ttgatgagg caagagctgg cactctgaaa ccaagaacag	1440

sequencelisting

cctgatgcag gacagggatg ctgcctctgc cagggcctgg cccaagatgc acactgtgaa	1500
tggctatgtg aacaggagcc tgcctggcct gattggctgc cacaggaagt ctgtgtactg	1560
gcatgtgatt ggcatgggca ccacccctga ggtgcacagc atcttcctgg agggccacac	1620
cttcctggtc aggaaccaca ggcaggccag cctggagatc agcccatca ctttcctgac	1680
tgcccagacc ctgctgatgg acctgggcca gttcctgctg ttctgccaca tcagcagcca	1740
ccagcatgat ggcatggagg cctatgtgaa ggtggacagc tgccctgagg agccccagct	1800
gaggatgaag aacaatgagg aggctgagga ctatgatgat gacctgactg actctgagat	1860
ggatgtggtg aggtttgatg atgacaacag ccccagcttc atccagatca ggtctgtggc	1920
caagaagcac cccaagacct gggtgcacta cattgctgct gaggaggagg actgggacta	1980
tgccccctg gtgctggccc ctgatgacag gagctacaag agccagtacc tgaacaatgg	2040
ccccagagg attggcagga agtacaagaa ggtcaggttc atggcctaca ctgatgaaac	2100
cttcaagacc agggaggcca tccagcatga gtctggcatc ctgggcccc tgctgtatgg	2160
ggagggtgggg gacaccctgc tgatcatctt caagaaccag gccagcaggc cctacaacat	2220
ctacccccat ggcatcactg atgtgaggcc cctgtacagc aggaggctgc ccaagggggt	2280
gaagcacctg aaggacttcc ccacctgcc tggggagatc ttcaagtaca agtggactgt	2340
gactgtggag gatggcccca ccaagtctga cccaggtgc ctgaccagat actacagcag	2400
ctttgtgaac atggagaggg acctggcctc tggcctgatt ggccccctgc tgatctgcta	2460
caaggagtct gtggaccaga ggggcaacca gatcatgtct gacaagagga atgtgatcct	2520
gttctctgtg tttgatgaga acaggagctg gtacctgact gagaacatcc agaggttcct	2580
gccaaccct gctggggtgc agctggagga ccctgagttc caggccagca acatcatgca	2640
cagcatcaat ggctatgtgt ttgacagcct gcagctgtct gtgtgcctgc atgaggtggc	2700
ctactggtac atcctgagca ttggggccca gactgacttc ctgtctgtgt tcttctctgg	2760
ctacaccttc aagcacaaga tgggtgatga ggacaccctg accctgttcc ctttctctgg	2820
ggagactgtg ttcattgagca tggagaacct tggcctgtgg attctgggct gccacaactc	2880
tgacttcagg aacaggggca tgactgccct gctgaaagtc tccagctgtg acaagaacac	2940
tggggactac tatgaggaca gctatgagga catctctgcc tacctgctga gcaagaacaa	3000

sequencelisting

tgccattgag	cccaggagct	tcagccagaa	ccccccagt	ctgaagaggc	accagaggga	3060
gatcaccagg	accaccctgc	agtctgacca	ggaggagatt	gactatgatg	acaccatctc	3120
tgtggagatg	aagaaggagg	actttgacat	ctacgacgag	gacgagaacc	agagccccag	3180
gagcttccag	aagaagacca	ggcactactt	cattgctgct	gtggagaggc	tgtgggacta	3240
tggcatgagc	agcagcccc	atgtgctgag	gaacagggcc	cagtctggct	ctgtgcccc	3300
gttcaagaag	gtgggtgttc	aggagttcac	tgatggcagc	ttcaccagc	ccctgtacag	3360
aggggagctg	aatgagcacc	tgggcctgct	gggcccctac	atcagggtg	aggtggagga	3420
caacatcatg	gtgaccttca	ggaaccaggc	cagcaggccc	tacagcttct	acagcagcct	3480
gatcagctat	gaggaggacc	agaggcaggg	ggctgagccc	aggaagaact	ttgtgaagcc	3540
caatgaaacc	aagacctact	tctggaaggt	gcagcaccac	atggccccca	ccaaggatga	3600
gtttgactgc	aaggcctggg	cctacttctc	tgatgtggac	ctggagaagg	atgtgcactc	3660
tggcctgatt	ggccccctgc	tgggtgtgcca	caccaacacc	ctgaaccctg	cccatggcag	3720
gcaggtgact	gtgcaggagt	ttgccctgtt	cttcaccatc	tttgatgaaa	ccaagagctg	3780
gtacttcact	gagaacatgg	agaggaactg	cagggccccc	tgcaacatcc	agatggagga	3840
ccccaccttc	aaggagaact	acaggttcca	tgccatcaat	ggctacatca	tggacaccct	3900
gcctggcctg	gtgatggccc	aggaccagag	gatcaggtgg	tacctgctga	gcatgggcag	3960
caatgagaac	atccacagca	tccacttctc	tggccatgtg	ttcactgtga	ggaagaagga	4020
ggagtacaag	atggccctgt	acaacctgta	ccctgggggtg	tttgagactg	tggagatgct	4080
gcccagcaag	gctggcatct	ggagggtgga	gtgcctgatt	ggggagcacc	tgcatgctgg	4140
catgagcacc	ctgttcctgg	tgtacagcaa	caagtgccag	acccccctgg	gcatggcctc	4200
tggccacatc	agggacttcc	agatcactgc	ctctggccag	tatggccagt	gggcccccaa	4260
gctggccagg	ctgcactact	ctggcagcat	caatgcctgg	agcaccaagg	agcccttcag	4320
ctggatcaag	gtggacctgc	tggcccccat	gatcatccat	ggcatcaaga	cccagggggc	4380
caggcagaag	ttcagcagcc	tgtacatcag	ccagttcatc	atcatgtaca	gcctggatgg	4440
caagaagtgg	cagacctaca	ggggcaacag	cactggcacc	ctgatggtgt	tctttggcaa	4500
tgtggacagc	tctggcatca	agcacaacat	cttcaacccc	cccatcattg	ccagatacat	4560

sequencelisting

caggctgcac	cccacccact	acagcatcag	gagcaccctg	aggatggagc	tgatgggctg	4620
tgacctgaac	agctgcagca	tgcccctggg	catggagagc	aaggccatct	ctgatgccca	4680
gatcactgcc	agcagctact	tcaccaacat	gtttgccacc	tgagagccca	gcaaggccag	4740
gctgcacctg	cagggcagga	gcaatgcctg	gaggccccag	gtcaacaacc	ccaaggagtg	4800
gctgcaggtg	gacttccaga	agaccatgaa	ggtgactggg	gtgaccaccc	aggggggtgaa	4860
gagcctgctg	accagcatgt	atgtgaagga	gttcctgatc	agcagcagcc	aggatggcca	4920
ccagtggacc	ctgttcttcc	agaatggcaa	ggtgaaggtg	ttccagggca	accaggacag	4980
cttcacccct	gtggtgaaca	gcctggaccc	ccccctgctg	accagatacc	tgaggattca	5040
ccccagagc	tggtgaccc	agattgccct	gaggatggag	gtgctgggct	gtgaggccca	5100
ggacctgtac	tgacctcgag	gcactgtcct	ttcctaataa	aatgaggaaa	ttgcatcgca	5160
ttgtctgagt	aggtgtcatt	ctattctggg	gggtgggggtg	gggcaggaca	gcaaggggga	5220
ggattgggaa	gacaatagca	ggcatgctgg	ggatgcggtg	ggctctatgg	gcactcgaca	5280
ggttaatfff	taaaaagcag	tcaaaagtcc	aagtggccct	tggcagcatt	tactctctct	5340
gtttgctctg	gttaataatc	tcaggagcac	aaacattcct	ggaggcagga	gaagaaatca	5400
acatcctgga	cttatcctct	gggcctctcc	ccacccccag	gagaggctca	ggttaatfff	5460
taaaaagcag	tcaaaagtcc	aagtggccct	tggcagcatt	tactctctct	gtttgctctg	5520
gttaataatc	tcaggagcac	aaacattcct	ggaggcagga	gaagaaatca	acatcctgga	5580
cttatcctct	gggcctctcc	ccacccccag	gagaggctgt	cgagtggcgg	ccgcaggaac	5640
ccctagtgat	ggagttggcc	actccctctc	tgcgcgctcg	ctcgctcact	gaggccgggc	5700
gaccaaaggt	cgcccgacgc	ccgggctttg	cccgggcggc	ctcagtgagc	gagcgagcgc	5760
gcagagaggg	agtggccaa					5779

<210> 21

<211> 5962

<212> DNA

<213> Adeno-Associated Virus 2

<400> 21

ttggccactc	cctctctgcg	cgctcgctcg	ctcactgagg	ccgcccgggc	aaagcccggg	60
------------	------------	------------	------------	------------	------------	----

sequencelisting						
cgtcgggcga	cctttggtcg	cccggcctca	gtgagcgagc	gagcgcgcag	agagggagtg	120
gccaactcca	tcactagggg	ttcctgcggc	cgcacgcgtg	ttttcgaccc	ctctcacact	180
acctaaacca	cgccaggaca	acctctgctc	ctctccaccg	aaattccaag	gggtcgagtg	240
gatgttgagg	gtggcatggg	cccagagagg	tctctgacct	ctgccccagc	tccaaggtca	300
gcaggcaggg	agggtgtgt	gtttgctgtt	tgctgcttgc	aatgtttgcc	cattttaggg	360
acatgagtag	gctgaagttt	gttcagtgtg	gacttcagag	gcagcacaca	aacagctgct	420
ggaggatggg	aactgagggg	ttggaagggg	gcagggtgag	cccagaaact	cctgtgtgcc	480
tctgagcctg	cagacgcgaa	acgtcgactg	gacacaggac	gctgtggttt	ctgagccagg	540
gggcgactca	gatcccagcc	agtggactta	gcccctgttt	gctcctccga	taactggggg	600
gaccttggtt	aatattcacc	agcagcctcc	cccgttgccc	ctctggatcc	actgcttaaa	660
tacggacgag	gacagggccc	tgtctcctca	gcttcaggca	ccaccactga	cctgggacag	720
tgaatcgtaa	gtactagcag	ctacaatcca	gctaccattc	tgcttttatt	ttatggttgg	780
gataaggctg	gattattctg	agtccaagct	aggccctttt	gctaatcatg	ttcatacctc	840
ttatcttcct	cccacagctc	ctgggcaacg	tgctggctctg	tgtgctggcc	catcactttg	900
gcaaagaatt	gcgatcgcca	ccatgcagat	tgagctgagc	acctgcttct	tcctgtgcct	960
gctgaggttc	tgcttctctg	ccaccaggag	atactacctg	ggggctgtgg	agctgagctg	1020
ggactacatg	cagtctgacc	tgggggagct	gcctgtggat	gccaggttcc	ccccagagt	1080
gccaagagc	ttccccttca	acacctctgt	ggtgtacaag	aagaccctgt	ttgtggagtt	1140
cactgaccac	ctgttcaaca	ttgccaagcc	caggcccccc	tgatggggcc	tgctggggcc	1200
caccatccag	gctgaggtgt	atgacactgt	ggtgatcacc	ctgaagaaca	tggccagcca	1260
ccctgtgagc	ctgcatgctg	tgggggtgag	ctactggaag	gcctctgagg	gggctgagta	1320
tgatgaccag	accagccaga	gggagaagga	ggatgacaag	gtgttccctg	ggggcagcca	1380
cacctatgtg	tggcaggtgc	tgaaggagaa	tggcccatg	gcctctgacc	ccctgtgcct	1440
gacctacagc	tacctgagcc	atgtggacct	ggtgaaggac	ctgaactctg	gcctgattgg	1500
ggccctgctg	gtgtgcaggg	agggcagcct	ggccaaggag	aagaccaga	ccctgcacaa	1560
gttcatcctg	ctgtttgctg	tgtttgatga	gggcaagagc	tggcactctg	aaaccaagaa	1620

sequencelisting

cagcctgatg caggacaggg atgctgcctc tgccagggcc tggcccaaga tgcacactgt	1680
gaatggctat gtgaacagga gcctgcctgg cctgattggc tgccacagga agtctgtgta	1740
ctggcatgtg attggcatgg gcaccacccc tgaggtgcac agcatcttcc tggagggcca	1800
caccttcctg gtcaggaacc acaggcaggc cagcctggag atcagcccca tcaccttcct	1860
gactgcccag accctgctga tggacctggg ccagttcctg ctgttctgcc acatcagcag	1920
ccaccagcat gatggcatgg aggcctatgt gaaggtggac agctgccctg aggagcccca	1980
gctgaggatg aagaacaatg aggaggctga ggactatgat gatgacctga ctgactctga	2040
gatggatgtg gtgaggtttg atgatgacaa cagccccagc ttcattccaga tcaggtctgt	2100
ggccaagaag caccccaaga cctgggtgca ctacattgct gctgaggagg aggactggga	2160
ctatgcccc ctggtgctgg cccctgatga caggagctac aagagccagt acctgaacaa	2220
tggccccag aggattggca ggaagtacaa gaaggtcagg ttcattggcct aactgatga	2280
aaccttcaag accaggagg ccatccagca tgagtctggc atcctgggcc ccctgctgta	2340
tggggaggtg ggggacacc tgctgatcat cttcaagaac caggccagca ggccctacaa	2400
catctacccc catggcatca ctgatgtgag gcccctgtac agcaggaggc tgcccaaggg	2460
ggtgaagcac ctgaaggact tccccatcct gcctggggag atcttcaagt acaagtggac	2520
tgtgactgtg gaggatggcc ccaccaagtc tgaccccagg tgcctgacca gatactacag	2580
cagctttgtg aacatggaga gggacctggc ctctggcctg attggcccc tgctgatctg	2640
ctacaaggag tctgtggacc agaggggcaa ccagatcatg tctgacaaga ggaatgtgat	2700
cctgttctct gtgtttgatg agaacaggag ctggtacctg actgagaaca tccagaggtt	2760
cctgccccaac cctgctgggg tgcagctgga ggacctgag ttccaggcca gcaacatcat	2820
gcacagcatc aatggctatg tgtttgacag cctgcagctg tctgtgtgcc tgcattgaggt	2880
ggcctactgg tacatcctga gcattggggc ccagactgac ttcctgtctg tgttcttctc	2940
tggctacacc ttcaagcaca agatggtgta tgaggacacc ctgacctgt tccccttctc	3000
tggggagact gtgttcatga gcatggagaa ccctggcctg tggattctgg gctgccacaa	3060
ctctgacttc aggaacaggg gcatgactgc cctgctgaaa gtctccagct gtgacaagaa	3120
cactggggac tactatgagg acagctatga ggacatctct gcctacctgc tgagcaagaa	3180

sequencelisting

caatgccatt gagcccagga gcttcagcca gaacccccca gtgctgaaga ggcaccagag	3240
ggagatcacc aggaccaccc tgcagtctga ccaggaggag attgactatg atgacaccat	3300
ctctgtggag atgaagaagg aggactttga catctacgac gaggacgaga accagagccc	3360
caggagcttc cagaagaaga ccaggcacta cttcattgct gctgtggaga ggctgtggga	3420
ctatggcatg agcagcagcc cccatgtgct gaggaacagg gcccagtctg gctctgtgcc	3480
ccagttcaag aagggtggtg tccaggagtt cactgatggc agcttcaccc agcccctgta	3540
cagaggggag ctgaatgagc acctgggcct gctgggcccc tacatcaggg ctgaggtgga	3600
ggacaacatc atggtgacct tcaggaacca ggccagcagg ccctacagct tctacagcag	3660
cctgatcagc tatgaggagg accagaggca gggggctgag cccaggaaga actttgtgaa	3720
gccaatgaa accaagacct acttctggaa ggtgcagcac cacatggccc ccaccaagga	3780
tgagtttgac tgcaaggcct gggcctactt ctctgatgtg gacctggaga aggatgtgca	3840
ctctggcctg attggcccc tgctggtgtg ccacaccaac accctgaacc ctgcccattg	3900
caggcaggtg actgtgcagg agtttgcct gttcttcacc atctttgatg aaaccaagag	3960
ctggtacttc actgagaaca tggagaggaa ctgcagggcc ccctgcaaca tccagatgga	4020
ggaccccacc ttcaaggaga actacagggt ccatgccatc aatggctaca tcatggacac	4080
cctgcctggc ctggtgatgg cccaggacca gaggatcagg tgggtacctgc tgagcatggg	4140
cagcaatgag aacatccaca gcatccactt ctctggccat gtgttcactg tgaggaagaa	4200
ggaggagtac aagatggccc tgtacaacct gtaccctggg gtgtttgaga ctgtggagat	4260
gctgcccagc aaggctggca tctggagggt ggagtgcctg attggggagc acctgcatgc	4320
tggcatgagc accctgttcc tgggtgtacag caacaagtgc cagaccccc tgggcatggc	4380
ctctggccac atcagggact tccagatcac tgcctctggc cagtatggcc agtgggcccc	4440
caagctggcc aggctgcact actctggcag catcaatgcc tggagcacca aggagccctt	4500
cagctggatc aaggctggacc tgctggcccc catgatcatc catggcatca agaccaggg	4560
ggccaggcag aagttcagca gcctgtacat cagccagttc atcatcatgt acagcctgga	4620
tggcaagaag tggcagacct acaggggcaa cagcactggc accctgatgg tgttctttgg	4680
caatgtggac agctctggca tcaagcaca catcttcaac ccccccata ttgccagata	4740

sequencelisting

catcaggctg cacccccaccc actacagcat caggagcacc ctgaggatgg agctgatggg	4800
ctgtgacctg aacagctgca gcatgcccct gggcatggag agcaaggcca tctctgatgc	4860
ccagatcact gccagcagct acttcaccaa catgtttgcc acctggagcc ccagcaaggc	4920
caggctgcac ctgcagggca ggagcaatgc ctggaggccc caggtcaaca accccaagga	4980
gtggctgcag gtggacttcc agaagaccat gaaggtgact ggggtgacca cccagggggt	5040
gaagagcctg ctgaccagca tgtatgtgaa ggagttcctg atcagcagca gccaggatgg	5100
ccaccagtgg accctgttct tccagaatgg caaggtgaag gtgttccagg gcaaccagga	5160
cagcttcacc cctgtggtga acagcctgga cccccccctg ctgaccagat acctgaggat	5220
tcacccccag agctgggtgc accagattgc cctgaggatg gaggtgctgg gctgtgaggc	5280
ccaggacctg tactgacctc gaggcactgt cttttcctaa taaaatgagg aaattgcatc	5340
gcattgtctg agtaggtgtc attctattct ggggggtggg gtggggcagg acagcaaggg	5400
ggaggattgg gaagacaata gcaggcatgc tggggatgcg gtgggctcta tgggcactcg	5460
acaggttaat ttttaaaaag cagtcaaaag tccaagtggc ctttggcagc atttactctc	5520
tctgtttgct ctggttaata atctcaggag cacaacatt cctggaggca ggagaagaaa	5580
tcaacatcct ggacttatcc tctgggcctc tccccacccc caggagaggc tcaggttaat	5640
ttttaaaaag cagtcaaaag tccaagtggc ctttggcagc atttactctc tctgtttgct	5700
ctggttaata atctcaggag cacaacatt cctggaggca ggagaagaaa tcaacatcct	5760
ggacttatcc tctgggcctc tccccacccc caggagaggc tgtcagatgg cggccgcagg	5820
aaccctagt gatggagttg gccactccct ctctgcgcgc tcgctcgtc actgaggccg	5880
ggcgaccaa ggtcgcccga cgccgggct ttgcccgggc ggcctcagtg agcgagcgag	5940
cgcgcagaga gggagtggcc aa	5962

<210> 22
 <211> 5919
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 22	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120

sequencelisting

gccaaactcca	tcactagggg	ttcctgcggc	cgcacgcgta	ggctcagagg	cacacaggag	180
tttctgggct	caccctgccc	ccttccaacc	cctcagttcc	catcctccag	cagctgtttg	240
tgtgctgcct	ctgaagtcca	cactgaacaa	acttcagcct	actcatgtcc	ctaaaatggg	300
caaacattgc	aagcagcaaa	cagcaaacac	acagccctcc	ctgcctgctg	accttgagagc	360
tggggcagag	gtcagagacc	tctctggggc	catgccacct	ccaacatcca	ctcgaccctt	420
tggaatttcg	gtggagagga	gcagaggttg	tcctggcgtg	gtttaggtag	tgtgagaggg	480
gtcgacgatc	ttgctaccag	tggaacagcc	actaaggatt	ctgcagttag	agcagagggc	540
cagctaagtg	gtactctccc	agagactgtc	tgactcacgc	cacccctcc	accttgagaca	600
caggacgctg	tggtttctga	gccaggtaca	atgactcctt	tcggtaagtg	cagtgggaagc	660
tgtacactgc	ccaggcaaag	cgtccgggca	gcgtaggcgg	gcgactcaga	tcccagccag	720
tggacttagc	ccctgtttgc	tcctccgata	actgggggtga	ccttggttaa	tattcaccag	780
cagcctcccc	cgttgcccct	ctggatccac	tgcttaaata	cggacgagga	cagggccctg	840
tctcctcagc	ttcaggcacc	accactgacc	tgggacagtg	aatcgtaagt	atgcctttca	900
ctgcgagagg	ttctggagag	gcttctgagc	tcccatggc	ccaggcaggc	agcaggtctg	960
gggcaggagg	ggggttgtgg	agtgggtatc	cgcttgctga	ggtgcagggc	agatcatcat	1020
gtgccttgac	tcggggcctg	gccccccat	ctctgtcttg	caggacaatt	gccgtcttct	1080
gtctcgtggg	gcatcctcct	gctggcaggc	ctgtgctgcc	tgggccctgt	ctccctggct	1140
gaggaccggc	caccatgcag	attgagctga	gcacctgctt	cttcctgtgc	ctgctgaggt	1200
tctgcttctc	tgccaccagg	agatactacc	tgggggctgt	ggagctgagc	tgggactaca	1260
tgcagtctga	cctggggggag	ctgcctgtgg	atgccaggtt	ccccccaga	gtgcccaga	1320
gcttccccct	caacacctct	gtggtgtaca	agaagaccct	gtttgtggag	ttcactgacc	1380
acctgttcaa	cattgccaaag	cccaggcccc	cctggatggg	cctgctgggc	cccaccatcc	1440
aggctgaggt	gtatgacact	gtggtgatca	ccctgaagaa	catggccagc	caccctgtga	1500
gcctgcatgc	tgtggggggtg	agctactgga	aggcctctga	gggggctgag	tatgatgacc	1560
agaccagcca	gagggagaag	gaggatgaca	aggtgttccc	tgggggcagc	cacacctatg	1620
tgtggcaggt	gctgaaggag	aatggcccca	tggcctctga	ccccctgtgc	ctgacctaca	1680

sequencelisting

gctacctgag ccatgtggac ctggtgaagg acctgaactc tggcctgatt ggggccctgc	1740
tgggtgtgcag ggaggggcagc ctggccaagg agaagaccca gaccctgcac aagttcatcc	1800
tgctgtttgc tgtgtttgat gagggcaaga gctggcactc tgaaaccaag aacagcctga	1860
tgaggacag ggatgctgcc tctgccaggg cctggcccaa gatgcacact gtgaatggct	1920
atgtgaacag gagcctgcct ggccctgattg gctgccacag gaagtctgtg tactggcatg	1980
tgattggcat gggcaccacc cctgaggtgc acagcatctt cctggagggc cacaccttcc	2040
tggtcaggaa ccacaggcag gccagcctgg agatcagccc catcaccttc ctgactgccc	2100
agaccctgct gatggacctg ggccagttcc tgctgttctg ccacatcagc agccaccagc	2160
atgatggcat ggaggcctat gtgaagggtg acagctgccc tgaggagccc cagctgagga	2220
tgaagaacaa tgaggaggct gaggactatg atgatgacct gactgactct gagatggatg	2280
tggtgaggtt tgatgatgac aacagcccca gcttcatcca gatcaggtct gtggccaaga	2340
agcaccccaa gacctgggtg cactacattg ctgctgagga ggaggactgg gactatgccc	2400
ccctggtgct ggcccctgat gacaggagct acaagagcca gtacctgaac aatggccccc	2460
agaggattgg caggaagtac aagaaggta ggttcatggc ctacactgat gaaaccttca	2520
agaccaggga ggccatccag catgagtctg gcatcctggg cccctgctg tatggggagg	2580
tgggggacac cctgctgac atcttcaaga accaggccag caggccctac aacatctacc	2640
cccatggcat cactgatgtg aggcccctgt acagcaggag gctgccaag ggggtgaagc	2700
acctgaagga cttcccatc ctgcctgggg agatcttcaa gtacaagtgg actgtgactg	2760
tggaggatgg cccaccaag tctgaccca ggtgcctgac cagatactac agcagctttg	2820
tgaacatgga gagggacctg gcctctggcc tgattggccc cctgctgac tgctacaagg	2880
agtctgtgga ccagaggggc aaccagatca tgtctgacaa gaggaatgtg atcctgttct	2940
ctgtgtttga tgagaacagg agctggtacc tgactgagaa catccagagg ttctgcccc	3000
accctgctgg ggtgcagctg gaggaccctg agttccaggc cagcaacatc atgcacagca	3060
tcaatggcta tgtgtttgac agcctgcagc tgtctgtgtg cctgcatgag gtggcctact	3120
ggtacatcct gagcattggg gccagactg acttcctgtc tgtgttcttc tctggctaca	3180
ccttcaagca caagatggtg tatgaggaca ccctgaccct gttccccttc tctggggaga	3240

sequencelisting

ctgtgttcat	gagcatggag	aaccctggcc	tgtggattct	gggctgccac	aactctgact	3300
tcaggaacag	gggcatgact	gccctgctga	aagtctccag	ctgtgacaag	aacactgggg	3360
actactatga	ggacagctat	gaggacatct	ctgcctacct	gctgagcaag	aacaatgcca	3420
ttgagcccag	gagcttcagc	cagaaccccc	cagtgtctgaa	gaggcaccag	agggagatca	3480
ccaggaccac	cctgcagtct	gaccaggagg	agattgacta	tgatgacacc	atctctgttg	3540
agatgaagaa	ggaggacttt	gacatctacg	acgaggacga	gaaccagagc	cccaggagct	3600
tccagaagaa	gaccaggcac	tacttcattg	ctgctgtgga	gaggctgttg	gactatggca	3660
tgagcagcag	cccccatgtg	ctgaggaaca	gggcccagtc	tggctctgtg	ccccagttca	3720
agaaggtggt	gttccaggag	ttcactgatg	gcagcttcac	ccagcccctg	tacagagggg	3780
agctgaatga	gcacctgggc	ctgctgggcc	cctacatcag	ggctgaggtg	gaggacaaca	3840
tcatggtgac	cttcaggaac	caggccagca	ggccctacag	cttctacagc	agcctgatca	3900
gctatgagga	ggaccagagg	cagggggctg	agcccaggaa	gaactttgtg	aagcccaatg	3960
aaaccaagac	ctacttctgg	aaggtgcagc	accacatggc	ccccaccaag	gatgagtttg	4020
actgcaaggc	ctgggcctac	ttctctgatg	tggacctgga	gaaggatgtg	cactctggcc	4080
tgattggccc	cctgctggtg	tgccacacca	acaccctgaa	ccctgcccac	ggcaggcagg	4140
tgactgtgca	ggagtttgcc	ctgttcttca	ccatctttga	tgaaaccaag	agctggtact	4200
tcactgagaa	catggagagg	aactgcaggg	ccccctgcaa	catccagatg	gaggacccca	4260
ccttcaagga	gaactacagg	ttccatgcca	tcaatggcta	catcatggac	accctgcctg	4320
gcctggtgat	ggcccaggac	cagaggatca	ggtggtacct	gctgagcatg	ggcagcaatg	4380
agaacatcca	cagcatccac	ttctctggcc	atgtgttcac	tgtgaggaag	aaggaggagt	4440
acaagatggc	cctgtacaac	ctgtaccctg	gggtgtttga	gactgtggag	atgctgcca	4500
gcaaggctgg	catctggagg	gtggagtgcc	tgattgggga	gcacctgcat	gctggcatga	4560
gcaccctgtt	cctggtgtac	agcaacaagt	gccagacccc	cctgggcatg	gcctctggcc	4620
acatcaggga	cttcagatc	actgcctctg	gccagtatgg	ccagtgggcc	ccaagctgg	4680
ccaggctgca	ctactctggc	agcatcaatg	cctggagcac	caaggagccc	ttcagctgga	4740
tcaaggtgga	cctgctggcc	cccatgatca	tccatggcat	caagaccag	ggggccaggc	4800

sequencelisting

agaagttcag cagcctgtac atcagccagt tcatcatcat gtacagcctg gatggcaaga	4860
agtggcagac ctacaggggc aacagcactg gcaccctgat ggtgttcttt ggcaatgtgg	4920
acagctctgg catcaagcac aacatcttca acccccccat cattgccaga tacatcaggc	4980
tgcacccac ccactacagc atcaggagca ccctgaggat ggagctgatg ggctgtgacc	5040
tgaacagctg cagcatgccc ctgggcatgg agagcaaggc catctctgat gccagatca	5100
ctgccagcag ctacttcacc aacatgtttg ccacctggag cccagcaag gccaggctgc	5160
acctgcaggg caggagcaat gcctggaggc cccaggtcaa caacccaag gagtggctgc	5220
aggtggactt ccagaagacc atgaaggtga ctgggggtgac caccagggg gtgaagagcc	5280
tgctgaccag catgtatgtg aaggagtcc tgatcagcag cagccaggat ggccaccagt	5340
ggaccctgtt cttccagaat ggcaaggtga aggtgttcca gggcaaccag gacagcttca	5400
cccctgtggt gaacagcctg gaccccccc tgctgaccag atacctgagg attcaccacc	5460
agagctgggt gcaccagatt gccctgagga tggaggtgct gggctgtgag gccaggacc	5520
tgtactgagc tcgagctgtg ctttctagtt gccagccatc tgttgtttgc ccctccccg	5580
tgcccttctt gaccctggaa ggtgccactc ccactgtcct ttcctaataa aatgaggaaa	5640
ttgcatcgca ttgtctgagt aggtgtcatt ctattctggg ggggtgggtg gggcaggaca	5700
gcaaggggga ggattgggaa gacaatagca ggcattgctgg ggatgcggtg ggctctatgg	5760
accggtgcgg ccgcaggaac ccctagtgat ggagttggcc actccctctc tgcgcgctcg	5820
ctcgctcact gaggccgggc gaccaaaggt cgcccacgc ccgggctttg cccgggcggc	5880
ctcagtgagc gagcgagcgc gcagagaggg agtggccaa	5919

<210> 23

<211> 5306

<212> DNA

<213> Adeno-Associated Virus 2

<400> 23

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgccgggc aaagcccggg	60
---	----

cgtcgggcga ctttggctcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
--	-----

gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttaaactg cgaccctaaa	180
---	-----

sequencelisting

atgggcaaac attgcaagca gcaaacagca aactgacctt ggagctgggg cagaggctcag	240
agacctctct gggcactcga ccccttgga tttcggtgga gaggagcaga ggtacacagc	300
cctccctgcc tgcccatgc cacctccaac atctgtcctg gcgtgggtta ggtagtgtga	360
gaggggaatg actcctttcg gtaagtgcag tggaagctgt acactgcca ggcaaagcgt	420
ccgggcagcg taggcgggcg actcagatcc cagccagtgg acttagcccc tgtttgctcc	480
tccgataact ggggtgacct tggttaatat tcaccagcag cctccccctg tgcccctctg	540
gatccactgc ttaaatacgg acgaggacag ggccctgtct cctcagcttc aggcaccacc	600
actgacctgg gacagtgaat cgcgatcgca ctgcttaaat acggacgagg acagggccct	660
gtctcctcag cttcaggcac caccactgac ctgggacagt gaatcgcat cgccaccatg	720
cagattgagc tgagcacctg cttcttcctg tgcctgctga ggttctgctt ctctgccacc	780
aggagatact acctgggggc tgtggagctg agctgggact acatgcagtc tgacctgggg	840
gagctgcctg tggatgccag gttcccccc agagtgcca agagcttccc cttcaacacc	900
tctgtggtgt acaagaagac cctgtttgtg gagttcactg accacctgtt caacattgcc	960
aagcccaggc cccctggat gggcctgctg ggccccacca tccaggctga ggtgtatgac	1020
actgtggtga tcaccctgaa gaacatggcc agccaccctg tgagcctgca tgctgtgggg	1080
gtgagctact ggaaggcctc tgagggggct gagtatgatg accagaccag ccagaggggag	1140
aaggaggatg acaaggtgtt ccctgggggc agccacacct atgtgtggca ggtgctgaag	1200
gagaatggcc ccatggcctc tgacccctg tgcctgacct acagctacct gagccatgtg	1260
gacctggtga aggacctgaa ctctggcctg attggggccc tgctggtgtg cagggagggc	1320
agcctggcca aggagaagac ccagaccctg cacaagttca tcctgctgtt tgctgtgttt	1380
gatgagggca agagctggca ctctgaaacc aagaacagcc tgatgcagga cagggatgct	1440
gcctctgcca gggcctggcc caagatgcac actgtgaatg gctatgtgaa caggagcctg	1500
cctggcctga ttggctgcca caggaagtct gtgtactggc atgtgattgg catgggcacc	1560
acctctgagg tgcacagcat cttcctggag ggccacacct tcctggtcag gaaccacagg	1620
caggccagcc tggagatcag ccccatcacc ttcctgactg ccagaccct gctgatggac	1680
ctgggccagt tcctgctgtt ctgccacatc agcagccacc agcatgatgg catggaggcc	1740

sequencelisting

tatgtgaagg tggacagctg ccctgaggag ccccagctga ggatgaagaa caatgaggag	1800
gctgaggact atgatgatga cctgactgac tctgagatgg atgtggtgag gtttgatgat	1860
gacaacagcc ccagcttcat ccagatcagg tctgtggcca agaagcacc caagacctgg	1920
gtgcactaca ttgctgctga ggaggaggac tgggactatg cccccctggt gctggcccct	1980
gatgacagga gctacaagag ccagtacctg aacaatggcc cccagaggat tggcaggaag	2040
tacaagaagg tcaggttcat ggcctacact gatgaaacct tcaagaccag ggaggccatc	2100
cagcatgagt ctggcatcct gggccccctg ctgtatgggg aggtggggga caccctgctg	2160
atcatcttca agaaccaggc cagcaggccc tacaacatct acccccatgg catcactgat	2220
gtgaggcccc tgtacagcag gaggctgccc aagggggtga agcacctgaa ggacttcccc	2280
atcctgcctg gggagatctt caagtacaag tggactgtga ctgtggagga tggccccacc	2340
aagtctgacc ccaggtgcct gaccagatac tacagcagct ttgtgaacat ggagagggac	2400
ctggcctctg gcctgattgg ccccctgctg atctgctaca aggagtctgt ggaccagagg	2460
ggcaaccaga tcatgtctga caagaggaat gtgatcctgt tctctgtgtt tgatgagaac	2520
aggagctggt acctgactga gaacatccag aggttctctgc ccaaccctgc tggggtgcag	2580
ctggaggacc ctgagttcca ggccagcaac atcatgcaca gcatcaatgg ctatgtgttt	2640
gacagcctgc agctgtctgt gtgcctgcat gaggtggcct actggtacat cctgagcatt	2700
ggggcccaga ctgacttcct gtctgtgttc ttctctggct acaccttcaa gcacaagatg	2760
gtgtatgagg acaccctgac cctgttcccc ttctctgggg agactgtgtt catgagcatg	2820
gagaaccctg gcctgtggat tctgggctgc cacaactctg acttcaggaa caggggcatg	2880
actgccctgc tgaaagtctc cagctgtgac aagaacactg gggactacta tgaggacagc	2940
tatgaggaca tctctgccta cctgctgagc aagaacaatg ccattgagcc caggagcttc	3000
agccagaacc cccagtgct gaagaggcac cagagggaga tcaccaggac caccctgcag	3060
tctgaccagg aggagattga ctatgatgac accatctctg tggagatgaa gaaggaggac	3120
tttgacatct acgacgagga cgagaaccag agccccagga gcttccagaa gaagaccagg	3180
cactacttca ttgctgctgt ggagaggctg tgggactatg gcatgagcag cagccccat	3240
gtgctgagga acagggccca gtctggctct gtgccccagt tcaagaaggt ggtgttccag	3300

sequencelisting

gagttcactg atggcagctt caccagcccc ctgtacagag gggagctgaa tgagcacctg	3360
ggcctgctgg gcccctacat cagggctgag gtggaggaca acatcatggg gaccttcagg	3420
aaccaggcca gcaggcccta cagcttctac agcagcctga tcagctatga ggaggaccag	3480
aggcaggggg ctgagcccag gaagaacttt gtgaagccca atgaaaccaa gacctacttc	3540
tggaaggtgc agcaccacat ggccccacc aaggatgagt ttgactgcaa ggcctgggcc	3600
tacttctctg atgtggacct ggagaaggat gtgcactctg gcctgattgg cccctgctg	3660
gtgtgccaca ccaacaccct gaaccctgcc catggcaggc aggtgactgt gcaggagttt	3720
gccctgttct tcaccatctt tgatgaaacc aagagctggg acttcactga gaacatggag	3780
aggaactgca gggccccctg caacatccag atggaggacc ccaccttcaa ggagaactac	3840
aggttccatg ccatcaatgg ctacatcatg gacaccctgc ctggcctggg gatggcccag	3900
gaccagagga tcaggtggta cctgctgagc atgggcagca atgagaacat ccacagcatc	3960
cacttctctg gccatgtgtt cactgtgagg aagaaggagg agtacaagat ggccctgtac	4020
aacctgtacc ctgggggtgtt tgagactgtg gagatgctgc ccagcaaggc tggcatctgg	4080
agggtggagt gcctgattgg ggagcacctg catgctggca tgagcacctt gttcctgggtg	4140
tacagcaaca agtgccagac cccctgggc atggcctctg gccacatcag ggacttccag	4200
atcactgcct ctggccagta tggccagtgg gcccccaagc tggccaggct gcaactactt	4260
ggcagcatca atgcctggag caccaaggag cccttcagct ggatcaagggt ggacctgctg	4320
gcccccatga tcatccatgg catcaagacc cagggggcca ggcagaagtt cagcagcctg	4380
tacatcagcc agttcatcat catgtacagc ctggatggca agaagtggca gacctacagg	4440
ggcaacagca ctggcacct gatggtgttc tttggcaatg tggacagctc tggcatcaag	4500
cacaacatct tcaaccccc catcattgcc agatacatca ggctgcaccc caccactac	4560
agcatcagga gcacctgag gatggagctg atgggctgtg acctgaacag ctgcagcatg	4620
cccctgggca tggagagcaa ggccatctct gatgcccaga tcaactgccag cagctacttc	4680
accaacatgt ttgccacctg gagccccagc aaggccaggc tgcacctgca gggcaggagc	4740
aatgcctgga ggccccaggt caacaacccc aaggagtggc tgcaggtgga cttccagaag	4800
accatgaagg tgactggggg gaccaccag ggggtgaaga gcctgctgac cagcatgtat	4860

sequencelisting

gtgaaggagt tcctgatcag cagcagccag gatggccacc agtggaccct gttcttccag	4920
aatggcaagg tgaaggtgtt ccagggcaac caggacagct tcaccctgt ggtgaacagc	4980
ctggaccccc ccctgctgac cagatacctg aggattcacc ccagagctg ggtgcaccag	5040
attgccctga ggatggaggt gctgggctgt gaggcccagg acctgtactg acctcgagga	5100
ataaaggaaa tttattttca ttgcaatagt gtgttggttt tttgtgtcac gtggcggccg	5160
caggaacccc tagtgatgga gttggccact ccctctctgc gcgctcgctc gtcactgag	5220
gccgggcgac caaaggctgc ccgacgccc ggctttgccc gggcggcctc agtgagcgag	5280
cgagcgcgca gagagggagt ggccaa	5306

<210> 24

<211> 5461

<212> DNA

<213> Adeno-Associated Virus 2

<400> 24

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cttttggtcg cccggcctca gtgagcgagc gagcgcgcag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgactt tatttgccac	180
aaaaacccta tcagatgggc gtctttatca tttccattgt acagatgggg aaacaggctt	240
cgggggtcggg gcatagccac ttactgacga ctccccaccc agcaagtggg tttgaaccgg	300
gacctctca cactacctaa accacgccag gacaacctct gtcctctcc accgaaattc	360
caaggggtcg agtggatgtt ggaggtggca tgggcccaga gaggtctctg acctctgccc	420
cagctccaag gtcagcaggc agggagggct gtgtgtttgc tgtttgctgc ttgcaatgtt	480
tgccccathtt agggacatga gtaggctgaa gtttgttcag tgtggacttc agaggcagca	540
cacaaacagc tgctggagga tgggaactga ggggttgga gggggcaggg tgagcccaga	600
aactcctgtg tgcctctgag cctgcagacg cgaaacgtcg actggacaca ggacgctgtg	660
gtttctgagc cagggggcga ctcatatccc agccagtgga cttagcccct gtttgctcct	720
ccgataactg gggtagcctt ggttaatat caccagcagc ctccccgtt gccctctgg	780
atccactgct taaatacga cgaggacagg gccctgtctc ctgagcttca ggcaccacca	840
ctgacctggg acagtgaatc gcgatcgcca ccatgcagat tgagctgagc acctgcttct	900

sequencelisting

tcctgtgcct gctgaggttc tgcttctctg ccaccaggag atactacctg ggggctgtgg	960
agctgagctg ggactacatg cagtctgacc tgggggagct gcctgtggat gccaggttcc	1020
ccccagagt gccaagagc ttccccttca acacctctgt ggtgtacaag aagaccctgt	1080
ttgtggagtt cactgaccac ctgttcaaca ttgccaagcc caggcccccc tggatgggcc	1140
tgctgggccc caccatccag gctgaggtgt atgacactgt ggtgatcacc ctgaagaaca	1200
tggccagcca ccctgtgagc ctgcatgctg tgggggtgag ctactggaag gcctctgagg	1260
gggctgagta tgatgaccag accagccaga gggagaagga ggatgacaag gtgttcctg	1320
ggggcagcca cacctatgtg tggcaggtgc tgaaggagaa tggccccatg gcctctgacc	1380
ccctgtgcct gacctacagc tacctgagcc atgtggacct ggtgaaggac ctgaactctg	1440
gcctgattgg ggccctgctg gtgtgcaggg agggcagcct ggccaaggag aagaccaga	1500
ccctgcacaa gttcatcctg ctgtttgctg tgtttgatga gggcaagagc tggcactctg	1560
aaaccaagaa cagcctgatg caggacaggg atgctgcctc tgccagggcc tggcccaaga	1620
tgcacactgt gaatggctat gtgaacagga gcctgcctgg cctgattggc tgccacagga	1680
agtctgtgta ctggcatgtg attggcatgg gcaccacccc tgaggtgcac agcatcttcc	1740
tggagggcca caccttcctg gtcaggaacc acaggcaggc cagcctggag atcagcccca	1800
tcaccttcct gactgcccag accctgctga tggacctggg ccagttcctg ctgttctgcc	1860
acatcagcag ccaccagcat gatggcatgg aggccatgt gaaggtggac agctgccctg	1920
aggagcccca gctgaggatg aagaacaatg aggaggctga ggactatgat gatgacctga	1980
ctgactctga gatggatgtg gtgaggtttg atgatgacaa cagccccagc ttcatccaga	2040
tcaggtctgt ggccaagaag caccccaaga cctgggtgca ctacattgct gctgaggagg	2100
aggactggga ctatgcccc ctggtgctgg cccctgatga caggagctac aagagccagt	2160
acctgaacaa tggccccag aggattggca ggaagtacaa gaaggtcagg ttcatggcct	2220
acactgatga aaccttcaag accagggagg ccatccagca tgagtctggc atcctgggcc	2280
ccctgctgta tggggaggtg ggggacacc tgctgatcat cttcaagaac caggccagca	2340
ggccctacaa catctacccc catggcatca ctgatgtgag gccctgtac agcaggaggc	2400
tggccaaggg ggtgaagcac ctgaaggact tccccatcct gcctggggag atcttcaagt	2460

sequencelisting

acaagtggac	tgtgactgtg	gaggatggcc	ccaccaagtc	tgaccccagg	tgacctgacca	2520
gatactacag	cagctttgtg	aacatggaga	gggacctggc	ctctggcctg	attggccccc	2580
tgctgatctg	ctacaaggag	tctgtggacc	agaggggcaa	ccagatcatg	tctgacaaga	2640
ggaatgtgat	cctgtttctt	gtgtttgatg	agaacaggag	ctggtacctg	actgagaaca	2700
tccagagggt	cctgcccac	cctgctgggg	tgacagctgga	ggacctgag	ttccaggcca	2760
gcaacatcat	gcacagcatc	aatggctatg	tgtttgacag	cctgcagctg	tctgtgtgcc	2820
tgcatgaggt	ggcctactgg	tacatcctga	gcattggggc	ccagactgac	ttcctgtctg	2880
tgttcttctc	tggtacacc	ttcaagcaca	agatgggtga	tgaggacacc	ctgacctgt	2940
tcccccttctc	tggggagact	gtgttcatga	gcatggagaa	ccctggcctg	tggaattctgg	3000
gctgccacaa	ctctgacttc	aggaacaggg	gcatgactgc	cctgctgaaa	gtctccagct	3060
gtgacaagaa	cactggggac	tactatgagg	acagctatga	ggacatctct	gcctacctgc	3120
tgagcaagaa	caatgccatt	gagcccagga	gcttcagcca	gaacccccca	gtgctgaaga	3180
ggcaccagag	ggagatcacc	aggaccaccc	tgacgtctga	ccaggaggag	attgactatg	3240
atgacaccat	ctctgtggag	atgaagaagg	aggactttga	catctacgac	gaggacgaga	3300
accagagccc	caggagcttc	cagaagaaga	ccaggcacta	cttcattgct	gctgtggaga	3360
ggctgtggga	ctatggcatg	agcagcagcc	cccatgtgct	gaggaacagg	gcccagtctg	3420
gctctgtgcc	ccagttcaag	aaggtgggtg	tccaggaggt	cactgatggc	agcttcaccc	3480
agcccctgta	cagaggggag	ctgaatgagc	acctgggcct	gctgggcccc	tacatcaggg	3540
ctgaggtgga	ggacaacatc	atggtgacct	tcaggaacca	ggccagcagg	ccctacagct	3600
tctacagcag	cctgatcagc	tatgaggagg	accagaggca	gggggctgag	cccaggaaga	3660
actttgtgaa	gcccacatgaa	accaagacct	acttctggaa	ggtgcagcac	cacatggccc	3720
ccaccaagga	tgagtttgac	tgcaaggcct	gggcctactt	ctctgatgtg	gacctggaga	3780
aggatgtgca	ctctggcctg	attggccccc	tgctgggtgtg	ccacaccaac	accctgaacc	3840
ctgcccattg	caggcaggtg	actgtgcagg	agtttgcctt	gttcttcacc	atctttgatg	3900
aaaccaagag	ctggtacttc	actgagaaca	tggagaggaa	ctgcagggcc	ccctgcaaca	3960
tccagatgga	ggaccccacc	ttcaaggaga	actacagggt	ccatgccatc	aatggctaca	4020

sequencelisting

tcatggacac cctgcctggc ctggtgatgg cccaggacca gaggatcagg tggtagctgc	4080
tgagcatggg cagcaatgag aacatccaca gcatccactt ctctggccat gtgttccactg	4140
tgaggaagaa ggaggagtac aagatggccc tgtacaacct gtaccctggg gtgtttgaga	4200
ctgtggagat gctgcccagc aaggctggca tctggagggt ggagtgcctg attggggagc	4260
acctgcatgc tggcatgagc accctgttcc tgggtgtacag caacaagtgc cagaccccc	4320
tgggcatggc ctctggccac atcagggact tccagatcac tgcctctggc cagtatggcc	4380
agtgggcccc caagctggcc aggctgcact actctggcag catcaatgcc tggagcacca	4440
aggagccctt cagctggatc aaggtggacc tgctggcccc catgatcatc catggcatca	4500
agaccagggg ggccaggcag aagttcagca gcctgtacat cagccagttc atcatcatgt	4560
acagcctgga tggcaagaag tggcagacct acaggggcaa cagcactggc accctgatgg	4620
tgttctttgg caatgtggac agctctggca tcaagcacia catcttcaac cccccatca	4680
ttgccagata catcaggctg caccacccc actacagcat caggagcacc ctgaggatgg	4740
agctgatggg ctgtgacctg aacagctgca gcatgcccct gggcatggag agcaaggcca	4800
tctctgatgc ccagatcact gccagcagct acttcaccaa catgtttgcc acctggagcc	4860
ccagcaaggc caggctgcac ctgcagggca ggagcaatgc ctggaggccc cagggtcaaca	4920
acccaagga gtggctgcag gtggacttcc agaagaccat gaagggtgact ggggtgacca	4980
cccaggggggt gaagagcctg ctgaccagca tgtatgtgaa ggagtccctg atcagcagca	5040
gccaggatgg ccaccagtgg accctgttct tccagaatgg caaggtgaag gtgttccagg	5100
gcaaccagga cagcttcacc cctgtggtga acagcctgga cccccctg ctgaccagat	5160
acctgaggat tcacccccag agctgggtgc accagattgc cctgaggatg gaggtgctgg	5220
gctgtgaggc ccaggacctg tactgacctc gaggaataaa ggaaatttat tttcattgca	5280
atagtgtgtt ggttttttgt gtcacgtggc ggccgcagga acccctagtg atggagttgg	5340
ccactccctc tctgcgcgtc cgctcgctca ctgaggccgg gcgaccaaag gtcgcccgc	5400
gcccgggctt tgcccgggcg gcctcagtga gcgagcgagc gcgcagagag ggagtggcca	5460
a	5461

sequencelisting

<210> 25

<211> 5327

<212> DNA

<213> Adeno-Associated Virus 2

<400> 25

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgaccc ctctcacact	180
acctaaacca cgccaggaca acctctgctc ctctccaccg aaattccaag gggtcgagtg	240
gatgttgag gtggcatggg cccagagagg tctctgacct ctgccccagc tccaaggtca	300
gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc cattttaggg	360
acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagctgct	420
ggaggatggg aactgagggg ttggaagggg gcagggtgag cccagaaact cctgtgtgcc	480
tctgagcctg cagacgcgaa acgtcgactg gacacaggac gctgtggttt ctgagccagg	540
gggcgactca gatcccagcc agtggactta gcccctgttt gctcctccga taactgggggt	600
gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc actgcttaaa	660
tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga cctgggacag	720
tgaatcgcg tgcaccat gcagattgag ctgagcacct gcttcttcct gtgcctgctg	780
aggttctgct tctctgccac caggagatac tacctggggg ctgtggagct gagctgggac	840
tacatgcagt ctgacctggg ggagctgcct gtggatgcca gggtccccc cagagtgccc	900
aagagcttcc cttcaacac ctctgtggtg tacaagaaga ccctgtttgt ggagttcact	960
gaccacctgt tcaacattgc caagcccagg cccccctgga tgggcctgct gggccccacc	1020
atccaggctg aggtgtatga cactgtggtg atcaccctga agaacatggc cagccaccct	1080
gtgagcctgc atgctgtggg ggtgagctac tggaaggcct ctgagggggc tgagtatgat	1140
gaccagacca gccagaggga gaaggaggat gacaaggtgt tccctggggg cagccacacc	1200
tatgtgtggc aggtgctgaa ggagaatggc cccatggcct ctgaccccct gtgcctgacc	1260
tacagctacc tgagccatgt ggacctggtg aaggacctga actctggcct gattggggcc	1320
ctgctggtgt gcagggaggg cagcctggcc aaggagaaga cccagaccct gcacaagttc	1380

sequencelisting						
atcctgctgt	ttgctgtgtt	tgatgagggc	aagagctggc	actctgaaac	caagaacagc	1440
ctgatgcagg	acagggatgc	tgccctctgcc	agggcctggc	ccaagatgca	cactgtgaat	1500
ggctatgtga	acaggagcct	gcctggcctg	attggctgcc	acaggaagtc	tgtgtactgg	1560
catgtgattg	gcatgggcac	caccctgag	gtgcacagca	tcttcctgga	gggccacacc	1620
ttcctgggtca	ggaaccacag	gcaggccagc	ctggagatca	gccccatcac	cttcctgact	1680
gcccagaccc	tgctgatgga	cctgggccag	ttcctgctgt	tctgccacat	cagcagccac	1740
cagcatgatg	gcatggaggc	ctatgtgaag	gtggacagct	gccctgagga	gccccagctg	1800
aggatgaaga	acaatgagga	ggctgaggac	tatgatgatg	acctgactga	ctctgagatg	1860
gatgtgggtga	ggtttggatga	tgacaacagc	cccagcttca	tccagatcag	gtctgtggcc	1920
aagaagcacc	ccaagacctg	ggtgcactac	attgctgctg	aggaggagga	ctgggactat	1980
gccccctgg	tgctggcccc	tgatgacagg	agctacaaga	gccagtacct	gaacaatggc	2040
ccccagagga	ttggcaggaa	gtacaagaag	gtcaggttca	tggcctacac	tgatgaaacc	2100
ttcaagacca	gggaggccat	ccagcatgag	tctggcatcc	tgggccccct	gctgtatggg	2160
gaggtggggg	acaccctgct	gatcatcttc	aagaaccagg	ccagcaggcc	ctacaacatc	2220
tacccccatg	gcatcactga	tgtgaggccc	ctgtacagca	ggaggctgcc	caagggggtg	2280
aagcacctga	aggacttccc	catcctgcct	ggggagatct	tcaagtacaa	gtggactgtg	2340
actgtggagg	atggccccac	caagtctgac	cccagggtgcc	tgaccagata	ctacagcagc	2400
tttgtgaaca	tggagaggga	cctggcctct	ggcctgattg	gccccctgct	gatctgtctac	2460
aaggagtctg	tggaccagag	gggcaaccag	atcatgtctg	acaagaggaa	tgtgatcctg	2520
ttctctgtgt	ttgatgagaa	caggagctgg	tacctgactg	agaacatcca	gaggttcctg	2580
cccaaccctg	ctgggggtgca	gctggaggac	cctgagttcc	aggccagcaa	catcatgcac	2640
agcatcaatg	gctatgtgtt	tgacagcctg	cagctgtctg	tgtgcctgca	tgagggtggcc	2700
tactgggtaca	tcctgagcat	tggggcccag	actgacttcc	tgtctgtgtt	cttctctggc	2760
tacaccttca	agcacaagat	ggtgtatgag	gacaccctga	ccctgtttccc	cttctctggg	2820
gagactgtgt	tcatgagcat	ggagaaccct	ggcctgtgga	ttctgggctg	ccacaactct	2880
gacttcagga	acaggggcat	gactgccctg	ctgaaagtct	ccagctgtga	caagaacact	2940

sequencelisting

ggggactact atgaggacag ctatgaggac atctctgcct acctgctgag caagaacaat	3000
gccattgagc ccaggagctt cagccagaac cccccagtgc tgaagaggca ccagagggag	3060
atcaccagga ccaccctgca gtctgaccag gaggagattg actatgatga caccatctct	3120
gtggagatga agaaggagga ctttgacatc tacgacgagg acgagaacca gagccccagg	3180
agcttccaga agaagaccag gcactacttc attgctgctg tggagaggct gtgggactat	3240
ggcatgagca gcagccccca tgtgctgagg aacagggccc agtctggctc tgtgccccag	3300
ttcaagaagg tggtgttcca ggagttcact gatggcagct tcaccagcc cctgtacaga	3360
ggggagctga atgagcacct gggcctgctg ggcccctaca tcagggtga ggtggaggac	3420
aacatcatgg tgaccttcag gaaccaggcc agcaggccct acagcttcta cagcagcctg	3480
atcagctatg aggaggacca gaggcagggg gctgagccca ggaagaactt tgtgaagccc	3540
aatgaaacca agacctactt ctggaaggtg cagcaccaca tggccccac caaggatgag	3600
tttgactgca aggctgggc ctacttctct gatgtggacc tggagaagga tgtgcactct	3660
ggcctgattg gccccctgct ggtgtgccac accaacaccc tgaaccctgc ccatggcagg	3720
caggtgactg tgcaggagtt tgccctgttc ttcaccatct ttgatgaaac caagagctgg	3780
tacttcactg agaacatgga gaggaactgc agggccccct gcaacatcca gatggaggac	3840
cccaccttca aggagaacta caggttccat gccatcaatg gctacatcat ggacaccctg	3900
cctggcctgg tgatggccca ggaccagagg atcagggtgt acctgctgag catgggcagc	3960
aatgagaaca tccacagcat ccacttctct ggccatgtgt tctactgtgag gaagaaggag	4020
gagtacaaga tggccctgta caacctgtac cctggggtgt ttgagactgt ggagatgctg	4080
cccagcaagg ctggcatctg gaggggtggag tgcctgattg gggagcacct gcatgctggc	4140
atgagcacc tgttcctggt gtacagcaac aagtgccaga cccccctggg catggcctct	4200
ggccacatca gggacttcca gatcactgcc tctggccagt atggccagtg ggcccccaag	4260
ctggccaggc tgcactactc tggcagcatc aatgcctgga gcaccaagga gcccttcagc	4320
tggatcaagg tggacctgct ggcccccatg atcatccatg gcatcaagac ccagggggcc	4380
aggcagaagt tcagcagcct gtacatcagc cagttcatca tcatgtacag cctggatggc	4440
aagaagtggc agacctacag gggcaacagc actggcacc tgatggtgtt ctttggcaat	4500

sequencelisting

gtggacagct ctggcatcaa gcacaacatc ttcaaccccc ccatcattgc cagatacatc	4560
aggctgcacc ccaccacta cagcatcagg agcaccctga ggatggagct gatgggctgt	4620
gacctgaaca gctgcagcat gcccctgggc atggagagca aggccatctc tgatgccag	4680
atcactgcca gcagctactt caccaacatg tttgccacct ggagccccag caaggccagg	4740
ctgcacctgc agggcaggag caatgcctgg agggccccag tcaacaacct caaggagtgg	4800
ctgcaggtgg acttccagaa gaccatgaag gtgactgggg tgaccacca gggggtgaag	4860
agcctgctga ccagcatgta tgtgaaggag ttcctgatca gcagcagcca ggatggccac	4920
cagtggacct tgttcttcca gaatggcaag gtgaaggtgt tccagggcaa ccaggacagc	4980
ttcacccctg tggatgaacag cctggacccc cccctgctga ccagatacct gaggattcac	5040
ccccagagct gggatgcacca gattgccctg aggatggagg tgctgggctg tgaggcccag	5100
gacctgtact gacctcagg aataaaggaa atttatcttc attgcaatag tgtgttggtt	5160
ttttgtgtca cgtggcggcc gcaggaacct ctagtgatgg agttggccac tccctctctg	5220
cgctgctgct cgctcactga ggccgggcga ccaaaggctc cccgacgccc gggctttgcc	5280
cgggcggcct cagtgaagca gcgagcgcg agagaggagc tggccaa	5327

<210> 26

<211> 5309

<212> DNA

<213> Adeno-Associated Virus 2

<400> 26

ttggccactc cctctctgct cgctcgctc ctcactgagg ccgcccgggc aaagcccggg	60
cgctgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtc tgcaggctca gaggcacaca	180
ggagtttctg ggctcacctt gcccccttcc aaccctcag ttccatcct ccagcagctg	240
tttgtgtgct gcctctgaag tccacactga acaaacttca gcctactcat gtcctaaaa	300
tgggcaaaca ttgcaagcag caaacagcaa acacacagcc ctccctgcct gctgaccttg	360
gagctggggc agaggtcaga gacctctctg ggcccatgcc acctccaaca tccactcgac	420
cccttggaat ttcggtggag aggagcagag gttgtcctgg cgtggtttag gtagtgtgag	480
aggggtcgac tggacacagg acgctgtggt ttctgagcca gggggcgact cagatcccag	540

sequencelisting

ccagtggact tagcccctgt ttgctcctcc gataactggg gtgaccttgg ttaatatcca	600
ccagcagcct cccccgttgc ccctctggat ccactgctta aatacggacg aggacagggc	660
cctgtctcct cagcttcagg caccaccact gacctgggac agtgaatcgc gatcgccacc	720
atgcagattg agctgagcac ctgcttcttc ctgtgcctgc tgaggttctg cttctctgcc	780
accaggagat actacctggg ggctgtggag ctgagctggg actacatgca gtctgacctg	840
ggggagctgc ctgtggatgc caggttcccc cccagagtgc ccaagagctt ccccttcaac	900
acctctgtgg tgtacaagaa gacctgttt gtggagttca ctgaccacct gttcaacatt	960
gccaagccca ggccccctg gatgggcctg ctgggccccca ccatccaggc tgagggtgtat	1020
gacactgtgg tgatcacct gaagaacatg gccagccacc ctgtgagcct gcatgctgtg	1080
ggggtgagct actggaaggc ctctgagggg gctgagtatg atgaccagac cagccagagg	1140
gagaaggagg atgacaaggt gttccctggg ggagccaca cctatgtgtg gcaggtgctg	1200
aaggagaatg gccccatggc ctctgacccc ctgtgcctga cctacagcta cctgagccat	1260
gtggacctgg tgaaggacct gaactctggc ctgattgggg ccctgctggt gtgcagggag	1320
ggcagcctgg ccaaggagaa gaccagacc ctgcacaagt tcctcctgct gtttgctgtg	1380
tttgatgagg gcaagagctg gcactctgaa accaagaaca gcctgatgca ggacagggat	1440
gctgcctctg ccagggcctg gccaagatg cacactgtga atggctatgt gaacaggagc	1500
ctgcctggcc tgattggctg ccacaggaag tctgtgtact ggcatgtgat tggcatgggc	1560
accaccctg aggtgcacag catcttcctg gagggccaca ccttcctggt caggaaccac	1620
aggcaggcca gcctggagat cagccccatc accttcctga ctgcccagac cctgctgatg	1680
gacctgggcc agttcctgct gttctgccac atcagcagcc accagcatga tggcatggag	1740
gcctatgtga aggtggacag ctgccctgag gagccccagc tgaggatgaa gaacaatgag	1800
gaggctgagg actatgatga tgacctgact gactctgaga tggatgtggt gaggtttgat	1860
gatgacaaca gccccagctt catccagatc aggtctgtgg ccaagaagca cccaagacc	1920
tgggtgcact acattgctgc tgaggaggag gactgggact atgccccct ggtgctggcc	1980
cctgatgaca ggagctacaa gagccagtac ctgaacaatg gccccagag gattggcagg	2040
aagtacaaga aggtcaggtt catggcctac actgatgaaa cttcaagac caggagggcc	2100

sequencelisting

atccagcatg agtctggcat cctgggcccc ctgctgtatg gggaggtggg ggacaccctg	2160
ctgatcatct tcaagaacca ggccagcagg ccctacaaca tctaccccca tggcatcact	2220
gatgtgaggc ccctgtacag caggaggctg cccaaggggg tgaagcacct gaaggacttc	2280
cccatcctgc ctggggagat cttcaagtac aagtggactg tgactgtgga ggatggcccc	2340
accaagtctg accccaggtg cctgaccaga tactacagca gctttgtgaa catggagagg	2400
gacctggcct ctggcctgat tggccccctg ctgatctgct acaaggagtc tgtggaccag	2460
aggggcaacc agatcatgtc tgacaagagg aatgtgatcc tgttctctgt gtttgatgag	2520
aacaggagct ggtacctgac tgagaacatc cagaggttcc tgcccaaccc tgctgggggtg	2580
cagctggagg accctgagtt ccaggccagc aacatcatgc acagcatcaa tggctatgtg	2640
tttgacagcc tgcagctgtc tgtgtgcctg catgaggtgg cctactggta catcctgagc	2700
attggggccc agactgactt cctgtctgtg ttcttctctg gctacacctt caagcacaag	2760
atggtgtatg aggacaccct gaccctgttc cccttctctg gggagactgt gttcatgagc	2820
atggagaacc ctggcctgtg gattctgggc tgccacaact ctgacttcag gaacaggggc	2880
atgactgccc tgctgaaagt ctccagctgt gacaagaaca ctggggacta ctatgaggac	2940
agctatgagg acatctctgc ctacctgtg agcaagaaca atgccattga gcccaggagc	3000
ttcagccaga accccccagt gctgaagagg caccagaggg agatcaccag gaccaccctg	3060
cagtctgacc aggaggagat tgactatgat gacaccatct ctgtggagat gaagaaggag	3120
gactttgaca tctacgacga ggacgagaac cagagcccca ggagcttcca gaagaagacc	3180
aggcactact tcattgctgc tgtggagagg ctgtgggact atggcatgag cagcagcccc	3240
catgtgctga ggaacagggc ccagtctggc tctgtgcccc agttcaagaa ggtggtgttc	3300
caggagtcca ctgatggcag cttcaccag cccctgtaca gaggggagct gaatgagcac	3360
ctgggcctgc tgggccccta catcagggt gaggtggagg acaacatcat ggtgaccttc	3420
aggaaccagg ccagcaggcc ctacagcttc tacagcagcc tgatcagcta tgaggaggac	3480
cagaggcagg gggctgagcc caggaagaac tttgtgaagc ccaatgaaac caagacctac	3540
ttctggaagg tgcagcacca catggcccc accaaggatg agtttgactg caaggcctgg	3600
gcctacttct ctgatgtgga cctggagaag gatgtgcact ctggcctgat tggccccctg	3660

sequencelisting

ctggtgtgcc	acaccaacac	cctgaaccct	gcccattggca	ggcaggtgac	tgtgcaggag	3720
tttggcctgt	tcttcaccat	ctttgatgaa	accaagagct	ggtacttcac	tgagaacatg	3780
gagaggaact	gcaggggcccc	ctgcaacatc	cagatggagg	acccacacctt	caaggagAAC	3840
tacaggttcc	atgccatcaa	tggctacatc	atggacaccc	tgccctggcct	ggtgatggcc	3900
caggaccaga	ggatcaggtg	gtacctgctg	agcatgggca	gcaatgagaa	catccacagc	3960
atccacttct	ctggccatgt	gttactgtg	aggaagaagg	aggagtacaa	gatggccctg	4020
tacaacctgt	accctgggggt	gtttgagact	gtggagatgc	tgcccagcaa	ggctggcatc	4080
tggaggggtg	agtgcctgat	tggggagcac	ctgcatgctg	gcatgagcac	cctgttcctg	4140
gtgtacagca	acaagtgccA	gacccccctg	ggcatggcct	ctggccacat	cagggacttc	4200
cagatcactg	cctctggcca	gtatggccag	tggggcccca	agctggccag	gctgcactac	4260
tctggcagca	tcaatgcctg	gagcaccaag	gagcccttca	gctggatcaa	ggtggacctg	4320
ctggcccccA	tgatcatcca	tggcatcaag	acccaggggg	ccaggcagaa	gttcagcagc	4380
ctgtacatca	gccagttcat	catcatgtac	agcctggatg	gcaagaagtg	gcagacctac	4440
aggggcaaca	gcactggcac	cctgatgggtg	ttctttggca	atgtggacag	ctctggcatc	4500
aagcacaaca	tcttcaaccc	ccccatcatt	gccagataca	tcaggctgca	ccccaccac	4560
tacagcatca	ggagcacctt	gaggatggag	ctgatgggct	gtgacctgaa	cagctgcagc	4620
atgcccctgg	gcatggagag	caaggccatc	tctgatgccc	agatcactgc	cagcagctac	4680
ttcaccaaca	tgtttgccac	ctggagcccc	agcaaggcca	ggctgcacct	gcagggcagg	4740
agcaatgcct	ggaggcccca	ggtcaacaac	cccaaggagt	ggctgcagggt	ggacttccag	4800
aagaccatga	aggtgactgg	ggtgaccacc	caggggggtga	agagcctgct	gaccagcatg	4860
tatgtgaagg	agttcctgat	cagcagcagc	caggatggcc	accagtggac	cctgttcttc	4920
cagaatggca	aggtgaagggt	gttccagggc	aaccaggaca	gcttcacccc	tgtggtgaac	4980
agcctggacc	ccccctgct	gaccagatac	ctgaggattc	accccagag	ctgggtgcac	5040
cagattgccc	tgaggatgga	ggtgctgggc	tgtgaggccc	aggacctgta	ctgacctcga	5100
ggaataaagg	aaatttatatt	tcattgcaat	agtgtgttgg	ttttttgtgt	cacgtggcgg	5160
ccgcaggaac	ccctagtgat	ggagttggcc	actccctctc	tgcgcgctcg	ctcgctcact	5220

sequencelisting

gaggccgggc gaccaaaggt cgcccgacgc ccgggctttg cccgggcggc ctcagtgagc	5280
gagcgagcgc gcagagaggg agtggccaa	5309
<210> 27	
<211> 5532	
<212> DNA	
<213> Adeno-Associated Virus 2	
<400> 27	
ttggccactc cctctctgcg cgctcgctcg ctcactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgcag agagggagtg	120
gccaactcca tcactagggg ttctctgcggc cgcacgcgtg ttttcgaccc ctctcacact	180
acctaaacca cgccaggaca acctctgctc ctctccaccg aaattccaag gggtcgagtg	240
gatgttgag gtggcatggg cccagagagg tctctgacct ctgccccagc tccaaggtca	300
gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc catttttaggg	360
acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagctgct	420
ggaggatggg aactgagggg ttggaagggg gcagggtgag cccagaaact cctgtgtgcc	480
tctgagcctg cagacgcgaa acgtcgactg gacacaggac gctgtggttt ctgagccagg	540
gggcgactca gatcccagcc agtggactta gcccctgttt gctcctccga taactggggg	600
gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc actgcttaaa	660
tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga cctgggacag	720
tgaatcgtaa gtatgccttt cactgcgaga ggttctggag aggcttctga gctccccatg	780
gcccaggcag gcagcaggtc tggggcagga ggggggttgt ggagtgcctt gactcggggc	840
ctggcccccc catctctgtc ttgcaggaca attgccgtct tctgtctcgt ggggcatcct	900
cctgctggca ggctgtgtct gcctgggtccc tgcgatgcc accatgcaga ttgagctgag	960
cacctgcttc ttctgtgtcc tgctgaggtt ctgcttctct gccaccagga gatactacct	1020
gggggctgtg gagctgagct gggactacat gcagtctgac ctgggggagc tgcctgtgga	1080
tgccagggtc cccccagag tgcccaagag cttccccttc aacacctctg tggtgtacaa	1140
gaagaccctg tttgtggagt tcactgacca cctgttcaac attgccaagc ccaggcccc	1200

sequencelisting

ctggatgggc ctgctgggcc ccaccatcca ggctgaggtg tatgacactg tggtgatcac	1260
cctgaagaac atggccagcc accctgtgag cctgcatgct gtgggggtga gctactggaa	1320
ggcctctgag ggggctgagt atgatgacca gaccagccag agggagaagg aggatgacaa	1380
ggtgttccct gggggcagcc acacctatgt gtggcaggtg ctgaaggaga atggcccat	1440
ggcctctgac cccctgtgcc tgacctacag ctacctgagc catgtggacc tggatgaagga	1500
cctgaactct ggcctgattg gggccctgct ggtgtgcagg gagggcagcc tggccaagga	1560
gaagaccag accctgcaca agttcatcct gctgtttgct gtgtttgatg agggcaagag	1620
ctggcactct gaaaccaaga acagcctgat gcaggacagg gatgctgcct ctgccagggc	1680
ctggccaag atgcacactg tgaatggcta tgtgaacagg agcctgcctg gcctgattgg	1740
ctgccacagg aagtctgtgt actggcatgt gattggcatg ggcaccacc ctgaggtgca	1800
cagcatcttc ctggagggcc acaccttcct ggtcaggaac cacaggcagg ccagcctgga	1860
gatcagcccc atcaccttc tgactgcca gaccctgctg atggacctgg gccagttcct	1920
gctgttctgc cacatcagca gccaccagca tgatggcatg gaggcctatg tgaaggtgga	1980
cagctgccct gaggagcccc agctgaggat gaagaacaat gaggaggctg aggactatga	2040
tgatgacctg actgactctg agatggatgt ggtgaggttt gatgatgaca acagccccag	2100
cttcatccag atcaggtctg tggccaagaa gcacccaag acctgggtgc actacattgc	2160
tgctgaggag gaggactggg actatgcccc cctggtgctg gccctgatg acaggagcta	2220
caagagccag tacctgaaca atggcccca gaggattggc aggaagtaca agaaggtcag	2280
gttcatggcc tacactgatg aaaccttcaa gaccaggag gccatccagc atgagtctgg	2340
catcctgggc cccctgctgt atggggaggt gggggacacc ctgctgatca tcttcaagaa	2400
ccaggccagc aggccctaca acatctaccc ccatggcatc actgatgtga ggcccctgta	2460
cagcaggagg ctgccaagg gggatgaagca cctgaaggac ttcccatcc tgcctgggga	2520
gatcttcaag tacaagtgga ctgtgactgt ggaggatggc cccaccaagt ctgacccag	2580
gtgcctgacc agatactaca gcagctttgt gaacatggag agggacctgg cctctggcct	2640
gattggcccc ctgctgatct gctacaagga gtctgtggac cagaggggca accagatcat	2700
gtctgacaag aggaatgtga tcctgttctc tgtgtttgat gagaacagga gctggtacct	2760

sequencelisting

gactgagaac atccagaggt tcctgccccaa ccctgctggg gtgcagctgg aggaccctga	2820
gttccaggcc agcaacatca tgcacagcat caatggctat gtgtttgaca gcctgcagct	2880
gtctgtgtgc ctgcatgagg tggcctactg gtacatcctg agcattgggg cccagactga	2940
cttcctgtct gtgttcttct ctggctacac cttcaagcac aagatggtgt atgaggacac	3000
cctgaccctg ttcccccttct ctggggagac tgtgttcatg agcatggaga accctggcct	3060
gtggattctg ggctgccaca actctgactt caggaacagg ggcatgactg ccctgctgaa	3120
agtctccagc tgtgacaaga aactgggga ctactatgag gacagctatg aggacatctc	3180
tgcttacctg ctgagcaaga acaatgccat tgagcccagg agcttcagcc agaaccccc	3240
agtgtgaag aggaccaga gggagatcac caggaccacc ctgcagtctg accaggagga	3300
gattgactat gatgacacca tctctgtgga gatgaagaag gaggactttg acatctacga	3360
cgaggacgag aaccagagcc ccaggagctt ccagaagaag accaggcact acttcattgc	3420
tgctgtggag aggctgtggg actatggcat gagcagcagc ccccatgtgc tgaggaacag	3480
ggcccagtct ggctctgtgc cccagttcaa gaaggtggtg ttccaggagt tctctgatgg	3540
cagcttcacc cagcccctgt acagagggga gctgaatgag cacctgggcc tgctgggccc	3600
ctacatcagg gctgaggtgg aggacaacat catggtgacc ttcaggaacc aggccagcag	3660
gccctacagc ttctacagca gcctgatcag ctatgaggag gaccagaggc agggggctga	3720
gcccaggaag aactttgtga agcccaatga aaccaagacc tacttctgga aggtgcagca	3780
ccacatggcc cccaccaagg atgagtttga ctgcaaggcc tgggcctact tctctgatgt	3840
ggacctggag aaggatgtgc actctggcct gattggcccc ctgctggtgt gccacaccaa	3900
cacctgaac cctgcccattg gcaggcaggt gactgtgcag gagtttgccc tgttcttcac	3960
catctttgat gaaaccaaga gctggtactt cactgagaac atggagagga actgcagggc	4020
cccctgcaac atccagatgg aggacccac cttcaaggag aactacaggt tccatgccat	4080
caatggctac atcatggaca ccctgcctgg cctggtgatg gcccaggacc agaggatcag	4140
tggttacctg ctgagcatgg gcagcaatga gaacatccac agcatccact tctctggcca	4200
tgtgttact gtgaggaaga aggaggagta caagatggcc ctgtacaacc tgtaccctgg	4260
ggtgtttgag actgtggaga tgctgcccag caaggctggc atctggaggg tggagtgcct	4320

sequencelisting

gattggggag cacctgcatg ctggcatgag caccctgttc ctggtgtaca gcaacaagtg	4380
ccagaccccc ctgggcatgg cctctggcca catcaggggac ttccagatca ctgcctctgg	4440
ccagtatggc cagtggggccc ccaagctggc caggctgcac tactctggca gcatcaatgc	4500
ctggagcacc aaggagccct tcagctggat caaggtggac ctgctggccc ccatgatcat	4560
ccatggcatc aagaccagg gggccaggca gaagttcagc agcctgtaca tcagccagtt	4620
catcatcatg tacagcctgg atggcaagaa gtggcagacc tacaggggca acagcactgg	4680
caccctgatg gtgttctttg gcaatgtgga cagctctggc atcaagcaca acatcttcaa	4740
cccccccatc attgccagat acatcaggct gcaccccacc cactacagca tcaggagcac	4800
cctgaggatg gagctgatgg gctgtgacct gaacagctgc agcatgcccc tgggcatgga	4860
gagcaaggcc atctctgatg ccagatcac tgccagcagc tacttcacca acatgtttgc	4920
cacctggagc ccagcaagg ccaggctgca cctgcagggc aggagcaatg cctggaggcc	4980
ccaggtcaac aacccaagg agtggctgca ggtggacttc cagaagacca tgaaggtgac	5040
tggggtgacc acccaggggg tgaagagcct gctgaccagc atgtatgtga aggagttcct	5100
gatcagcagc agccaggatg gccaccagtg gaccctgttc ttccagaatg gcaaggtgaa	5160
ggtgttccag ggcaaccagg acagcttcac ccctgtggtg aacagcctgg accccccct	5220
gctgaccaga tacctgagga ttcaccccca gagctgggtg caccagattg ccctgaggat	5280
ggaggtgctg ggctgtgagg ccaggacct gtactgacct cgaggaataa aggaaattta	5340
ttttcattgc aatagtgtgt tggttttttg tgtcacgtgg cggccgcagg aaccctagt	5400
gatggagttg gccactccct ctctgcgcgc tcgctcgctc actgaggccg ggcgacaaa	5460
ggtcgcccga cgccgggct ttgcccgggc ggcctcagtg agcgagcgag cgcgagaga	5520
gggagtggcc aa	5532

<210> 28

<211> 5877

<212> DNA

<213> Adeno-Associated Virus 2

<400> 28

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgccgggc aaagcccggg	60
---	----

cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
--	-----

sequencelisting

gccaaactcca	tcactagggg	ttcctgcggc	cgcacgcgtg	ttttcgaccc	ctctcacact	180
acctaaacca	cgccaggaca	acctctgctc	ctctccaccg	aaattccaag	gggtcgagtg	240
gatgttgag	gtggcatggg	cccagagagg	tctctgacct	ctgccccagc	tccaaggtca	300
gcaggcaggg	agggctgtgt	gtttgctgtt	tgctgcttgc	aatgtttgcc	catttttaggg	360
acatgagtag	gctgaagttt	gttcagtgtg	gacttcagag	gcagcacaca	aacagctgct	420
ggaggatggg	aactgagggg	ttggaagggg	gcagggtgag	cccagaaact	cctgtgtgcc	480
tctgagcctg	cagacgcgaa	acgtcgacag	gttaattttt	aaaaagcagt	caaaagtcca	540
agtggccctt	ggcagcattt	actctctctg	tttgctctgg	ttaataatct	caggagcaca	600
aacattcctg	gaggcaggag	aagaaatcaa	catcctggac	ttatcctctg	ggcctctccc	660
cacccccagg	agaggctcag	gttaattttt	aaaaagcagt	caaaagtcca	agtggccctt	720
ggcagcattt	actctctctg	tttgctctgg	ttaataatct	caggagcaca	aacattcctg	780
gaggcaggag	aagaaatcaa	catcctggac	ttatcctctg	ggcctctccc	cacccccagg	840
agaggctgtc	gactggacac	aggacgctgt	ggtttctgag	ccagggggcg	actcagatcc	900
cagccagtgg	acttagcccc	tgtttgctcc	tccgataact	ggggtgacct	tggttaatat	960
tcaccagcag	cctccccctg	tgcccctctg	gatccactgc	ttaaatacgg	acgaggacag	1020
ggccctgtct	cctcagcttc	aggcaccacc	actgacctgg	gacagtgaat	cgtaagtatg	1080
cctttcactg	cgagagggtc	tggagaggct	tctgagctcc	ccatggccca	ggcaggcagc	1140
aggtctgggg	caggaggggg	gttgtggagt	gccttgactc	ggggcctggc	cccccatct	1200
ctgtcttgca	ggacaattgc	cgtcttctgt	ctcgtggggc	atcctcctgc	tggcaggcct	1260
gtgctgcctg	gtccctgcga	tcgccaccat	gcagattgag	ctgagcacct	gcttcttcct	1320
gtgcctgctg	aggttctgct	tctctgccac	caggagatac	tacctggggg	ctgtggagct	1380
gagctgggac	tacatgcagt	ctgacctggg	ggagctgcct	gtggatgcca	ggttcccccc	1440
cagagtggcc	aagagcttcc	ccttcaacac	ctctgtggtg	tacaagaaga	ccctgtttgt	1500
ggagttcact	gaccacctgt	tcaacattgc	caagcccagg	ccccctgga	tgggcctgct	1560
gggccccacc	atccaggctg	aggtgtatga	cactgtggtg	atcacctga	agaacatggc	1620
cagccaccct	gtgagcctgc	atgctgtggg	ggtgagctac	tggaaggcct	ctgagggggc	1680

sequencelisting

tgagtatgat gaccagacca gccagagggga gaaggaggat gacaaggtgt tccctggggg	1740
cagccacacc tatgtgtggc aggtgctgaa ggagaatggc cccatggcct ctgaccccct	1800
gtgcctgacc tacagctacc tgagccatgt ggacctgggtg aaggacctga actctggcct	1860
gattggggcc ctgctgggtgt gcagggaggg cagcctggcc aaggagaaga cccagaccct	1920
gcacaagttc atcctgctgt ttgctgtgtt tgatgagggc aagagctggc actctgaaac	1980
caagaacagc ctgatgcagg acagggatgc tgcctctgcc agggcctggc ccaagatgca	2040
cactgtgaat ggctatgtga acaggagcct gcctggcctg attggctgcc acaggaagtc	2100
tgtgtactgg catgtgattg gcatgggcac caccctgag gtgcacagca tcttcctgga	2160
gggccacacc ttcttggtca ggaaccacag gcaggccagc ctggagatca gccccatcac	2220
cttcctgact gcccagacc tgctgatgga cctgggccag ttctgctgt tctgccacat	2280
cagcagccac cagcatgatg gcatggaggc ctatgtgaag gtggacagct gccctgagga	2340
gccccagctg aggatgaaga acaatgagga ggctgaggac tatgatgatg acctgactga	2400
ctctgagatg gatgtggtga ggtttgatga tgacaacagc cccagcttca tccagatcag	2460
gtctgtggcc aagaagcacc ccaagacctg ggtgcactac attgctgctg aggaggagga	2520
ctgggactat gccccctgg tgctggcccc tgatgacagg agctacaaga gccagtacct	2580
gaacaatggc ccccagagga ttggcaggaa gtacaagaag gtcaggttca tggcctacac	2640
tgatgaaacc ttcaagacca gggaggccat ccagcatgag tctggcatcc tgggccccct	2700
gctgtatggg gaggtggggg acaccctgct gatcatcttc aagaaccagg ccagcaggcc	2760
ctacaacatc tcccccatg gcatcactga tgtgaggccc ctgtacagca ggaggctgcc	2820
caagggggtg aagcacctga aggacttccc catcctgcct ggggagatct tcaagtacaa	2880
gtggactgtg actgtggagg atggccccac caagtctgac cccaggtgcc tgaccagata	2940
ctacagcagc tttgtgaaca tggagaggga cctggcctct ggccctgattg gccccctgct	3000
gatctgctac aaggagtctg tggaccagag gggcaaccag atcatgtctg acaagaggaa	3060
tgtgatcctg ttctctgtgt ttgatgagaa caggagctgg tacctgactg agaacatcca	3120
gaggttcctg cccaaccctg ctggggtgca gctggaggac cctgagttcc aggccagcaa	3180
catcatgcac agcatcaatg gctatgtgtt tgacagcctg cagctgtctg tgtgcctgca	3240

sequencelisting

tgaggtggcc tactggtaca tcctgagcat tggggcccag actgacttcc tgtctgtgtt	3300
cttctctggc tacaccttca agcacaagat ggtgtatgag gacaccctga ccctgttccc	3360
cttctctggg gagacttgtt tcatgagcat ggagaaccct ggcctgtgga ttctgggctg	3420
ccacaactct gacttcagga acaggggcat gactgccctg ctgaaagtct ccagctgtga	3480
caagaacact ggggactact atgaggacag ctatgaggac atctctgcct acctgctgag	3540
caagaacaat gccattgagc ccaggagctt cagccagaac cccccagtgc tgaagaggca	3600
ccagagggag atcaccagga ccaccctgca gtctgaccag gaggagattg actatgatga	3660
caccatctct gtggagatga agaaggagga ctttgacatc tacgacgagg acgagaacca	3720
gagccccagg agcttcaga agaagaccag gcactacttc attgctgctg tggagaggct	3780
gtgggactat ggcatgagca gcagccccca tgtgtctgagg aacagggccc agtctggctc	3840
tgtgccccag ttcaagaagg tgggtgttcca ggagttcact gatggcagct tcaccagcc	3900
cctgtacaga ggggagctga atgagcacct gggcctgctg ggcccctaca tcagggctga	3960
ggtggaggac aacatcatgg tgaccttcag gaaccaggcc agcaggccct acagcttcta	4020
cagcagcctg atcagctatg aggaggacca gaggcagggg gctgagccca ggaagaactt	4080
tgtgaagccc aatgaaacca agacctactt ctggaagggtg cagcaccaca tggccccac	4140
caaggatgag tttgactgca aggcctgggc ctacttctct gatgtggacc tggagaagga	4200
tgtgcactct ggcctgattg gccccctgct ggtgtgccac accaacaccc tgaaccctgc	4260
ccatggcagg caggtgactg tgcaggagtt tgccctgttc ttcaccatct ttgatgaaac	4320
caagagctgg tacttcactg agaacatgga gaggaactgc agggccccct gcaacatcca	4380
gatggaggac cccaccttca aggagaacta caggttccat gccatcaatg gctacatcat	4440
ggacaccctg cctggcctgg tgatggccca ggaccagagg atcaggtggt acctgctgag	4500
catgggcagc aatgagaaca tccacagcat ccacttctct ggccatgtgt tctactgtgag	4560
gaagaaggag gagtacaaga tggccctgta caacctgtac cctgggggtgt ttgagactgt	4620
ggagatgctg cccagcaagg ctggcatctg gaggggtggag tgcctgattg gggagcacct	4680
gcatgctggc atgagcacc tggttcctggt gtacagcaac aagtgccaga cccccctggg	4740
catggcctct ggccacatca gggacttcca gatcactgcc tctggccagt atggccagt	4800

sequencelisting

ggcccccaag ctggccaggc tgcactactc tggcagcatc aatgcctgga gcaccaagga	4860
gcccttcagc tggatcaagg tggacctgct ggcccccatg atcatccatg gcatcaagac	4920
ccaggggggcc aggcagaagt tcagcagcct gtacatcagc cagtccatca tcatgtacag	4980
cctggatggc aagaagtggc agacctacag gggcaacagc actggcacc ctgatggtgtt	5040
ctttggcaat gtggacagct ctggcatcaa gcacaacatc ttcaaccccc ccatcattgc	5100
cagatacatc aggctgcacc ccaccacta cagcatcagg agcaccctga ggatggagct	5160
gatgggctgt gacctgaaca gctgcagcat gccctgggc atggagagca aggccatctc	5220
tgatgcccag atcactgcc a gcagctactt caccaacatg tttgccacct ggagccccag	5280
caaggccagg ctgcacctgc agggcaggag caatgcctgg agggcccagg tcaacaaccc	5340
caaggagtgg ctgcagggtgg acttccagaa gaccatgaag gtgactgggg tgaccacca	5400
gggggtgaag agcctgctga ccagcatgta tgtgaaggag ttcctgatca gcagcagcca	5460
ggatggccac cagtggacc tgttcttcca gaatggcaag gtgaagggtgt tccagggcaa	5520
ccaggacagc ttcacccctg tggatgaacag cctggacccc cccctgctga ccagatacct	5580
gaggattcac cccagagct ggggtgcacca gattgccctg aggatggagg tgctgggctg	5640
tgaggcccag gacctgtact gacctcagg aataaaggaa atttattttc attgcaatag	5700
tgtgttggtt ttttgtgtca cgtggcggcc gcaggaaccc ctagtgatgg agttggccac	5760
tccctctctg cgcgctcgt cgctcactga ggccgggcga ccaaaggctg cccgacgccc	5820
gggctttgcc cgggcggcct cagtgagcga gcgagcgcgc agagaggag tggccaa	5877

<210> 29
 <211> 6054
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 29	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga ctttgggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgacct ctctcacact	180
acctaaacca cgccaggaca acctctgctc ctctccaccg aaattccaag gggtcgagtg	240

sequencelisting

gatgttggag gtggcatggg cccagagagg tctctgacct ctgccccagc tccaaggtca	300
gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc cattttaggg	360
acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagctgct	420
ggaggatggg aactgagggg ttggaagggg gcagggtgag cccagaaact cctgtgtgcc	480
tctgagcctg cagacgcga acgtcgacag gttaatTTTT aaaaagcagt caaaagtcca	540
agtggccctt ggcagcattt actctctctg tttgctctgg ttaataatct caggagcaca	600
aacattcctg gaggcaggag aagaaatcaa catcctggac ttatcctctg ggcctctccc	660
cacccccagg agaggctcag gttaatTTTT aaaaagcagt caaaagtcca agtggccctt	720
ggcagcattt actctctctg tttgctctgg ttaataatct caggagcaca aacattcctg	780
gaggcaggag aagaaatcaa catcctggac ttatcctctg ggcctctccc cacccccagg	840
agaggctgtc gactggacac aggacgctgt ggtttctgag ccagggggcg actcagatcc	900
cagccagtgg acttagcccc tgtttgctcc tccgataact ggggtgacct tggTTaatat	960
tcaccagcag cctccccgt tgccccctg gatccactgc ttaaatacgg acgaggacag	1020
ggccctgtct cctcagcttc aggcaccacc actgacctgg gacagtgaat cgtaagtatg	1080
cctttcactg cgagaggttc tggagaggct tctgagctcc ccatggcca ggcaggcagc	1140
aggtctgggg caggaggggg gttgtggagt gccttgactc ggggcctggc cccccatct	1200
ctgtcttgca ggacaattgc cgtcttctgt ctctgTgggc atcctcctgc tggcaggcct	1260
gtgctgcctg gtccctgcga tcgccaccat gcagattgag ctgagcacct gcttcttct	1320
gtgcctgctg aggttctgct tctctgccac caggagatac tacctggggg ctgtggagct	1380
gagctgggac tacatgcagt ctgacctggg ggagctgcct gtggatgcca ggTtcccccc	1440
cagagtgccc aagagcttcc cttcaacac ctctgtggtg tacaagaaga ccctgtttgt	1500
ggagttcact gaccacctgt tcaacattgc caagcccagg cccccctgga tgggcctgct	1560
gggccccacc atccaggctg aggtgtatga cactgtggtg atcaccctga agaacatggc	1620
cagccaccct gtgagcctgc atgctgtggg ggtgagctac tggaaggcct ctgagggggc	1680
tgagtatgat gaccagacca gccagaggga gaaggaggat gacaaggtgt tccctggggg	1740
cagccacacc tatgtgtggc aggtgctgaa ggagaatggc cccatggcct ctgaccctct	1800

sequencelisting

gtgcctgacc tacagctacc tgagccatgt ggacctggtg aaggacctga actctggcct	1860
gattggggcc ctgctggtgt gcagggaggg cagcctggcc aaggagaaga cccagaccct	1920
gcacaagttc atcctgctgt ttgctgtgtt tgatgagggc aagagctggc actctgaaac	1980
caagaacagc ctgatgcagg acagggatgc tgcctctgcc agggcctggc ccaagatgca	2040
cactgtgaat ggctatgtga acaggagcct gcctggcctg attggctgcc acaggaagtc	2100
tgtgtactgg catgtgattg gcatgggcac caccctgag gtgcacagca tcttcctgga	2160
gggccacacc ttcttggtca ggaaccacag gcaggccagc ctggagatca gccccatcac	2220
cttcctgact gcccagacct tgctgatgga cctgggccag ttcttgctgt tctgccacat	2280
cagcagccac cagcatgatg gcatggaggc ctatgtgaag gtggacagct gccctgagga	2340
gccccagctg aggatgaaga acaatgagga ggctgaggac tatgatgatg acctgactga	2400
ctctgagatg gatgtggtga ggtttgatga tgacaacagc cccagcttca tccagatcag	2460
gtctgtggcc aagaagcacc ccaagacctg ggtgcactac attgctgctg aggaggagga	2520
ctgggactat gccccctgg tgctggcccc tgatgacagg agctacaaga gccagtacct	2580
gaacaatggc ccccagagga ttggcaggaa gtacaagaag gtcaggttca tggcctacac	2640
tgatgaaacc ttcaagacca gggaggccat ccagcatgag tctggcatcc tgggccccct	2700
gctgtatggg gaggtggggg acaccctgct gatcatcttc aagaaccagg ccagcaggcc	2760
ctacaacatc taccctcatg gcatcactga tgtgaggccc ctgtacagca ggaggctgcc	2820
caagggggtg aagcacctga aggacttccc catcctgcct ggggagatct tcaagtacaa	2880
gtggactgtg actgtggagg atggccccac caagtctgac cccaggtgcc tgaccagata	2940
ctacagcagc tttgtgaaca tggagaggga cctggcctct ggctgattg gccccctgct	3000
gatctgctac aaggagtctg tggaccagag gggcaaccag atcatgtctg acaagaggaa	3060
tgtgatcctg ttctctgtgt ttgatgagaa caggagctgg tacctgactg agaacatcca	3120
gaggttcctg cccaaccctg ctggggtgca gctggaggac cctgagttcc aggccagcaa	3180
catcatgcac agcatcaatg gctatgtgtt tgacagcctg cagctgtctg tgtgcctgca	3240
tgagggtggc tactggtaca tcctgagcat tggggcccag actgacttcc tgtctgtgtt	3300
cttctctggc tacaccttca agcacaagat ggtgtatgag gacaccctga ccctgttccc	3360

sequencelisting

cttctctggg gagactgtgt tcatgagcat ggagaaccct ggcctgtgga ttctgggctg	3420
ccacaactct gacttcagga acaggggcat gactgccctg ctgaaagtct ccagctgtga	3480
caagaacact ggggactact atgaggacag ctatgaggac atctctgcct acctgctgag	3540
caagaacaat gccattgagc ccaggagctt cagccagaac cccccagtgc tgaagaggca	3600
ccagagggag atcaccagga ccaccctgca gtctgaccag gaggagattg actatgatga	3660
caccatctct gtggagatga agaaggagga ctttgacatc tacgacgagg acgagaacca	3720
gagccccagg agcttcaga agaagaccag gcactacttc attgctgctg tggagaggct	3780
gtgggactat ggcatgagca gcagcccca tgtgctgagg aacagggccc agtctggctc	3840
tgtgccccag ttcaagaagg tgggtgtcca ggagttcact gatggcagct tcaccagcc	3900
cctgtacaga ggggagctga atgagcacct ggcctgctg ggcccctaca tcagggtga	3960
ggtggaggac aacatcatgg tgaccttcag gaaccaggcc agcaggccct acagcttcta	4020
cagcagcctg atcagctatg aggaggacca gaggcagggg gctgagcca ggaagaactt	4080
tgtgaagccc aatgaaacca agacctactt ctggaaggtg cagcaccaca tggccccac	4140
caaggatgag ttgactgca aggcctgggc ctacttctct gatgtggacc tggagaagga	4200
tgtgcactct ggcctgattg gccccctgct ggtgtgccac accaacaccc tgaaccctgc	4260
ccatggcagg caggtgactg tgcaggagtt tgccctgttc ttcaccatct ttgatgaaac	4320
caagagctgg tacttcactg agaacatgga gaggaactgc agggccccct gcaacatcca	4380
gatggaggac cccaccttca aggagaacta caggttccat gccatcaatg gctacatcat	4440
ggacaccctg cctggcctgg tgatggcca ggaccagagg atcaggtggt acctgctgag	4500
catgggcagc aatgagaaca tccacagcat ccacttctct ggccatgtgt tctactgtgag	4560
gaagaaggag gagtacaaga tggccctgta caacctgtac cctgggggtgt ttgagactgt	4620
ggagatgctg cccagcaagg ctggcatctg gaggggtggag tgcctgattg gggagcacct	4680
gcatgctggc atgagcacc tggttcctggt gtacagcaac aagtgccaga cccccctggg	4740
catggcctct ggccacatca gggacttcca gatcactgcc tctggccagt atggccagt	4800
ggcccccaag ctggccaggc tgcactactc tggcagcatc aatgcctgga gcaccaagga	4860
gcccttcagc tggatcaagg tggacctgct ggccccatg atcatccatg gcatcaagac	4920

sequencelisting

ccagggggcc	aggcagaagt	tcagcagcct	gtacatcagc	cagttcatca	tcatgtacag	4980
cctgggatggc	aagaagtggc	agacctacag	gggcaacagc	actggcacc	tgatggtgtt	5040
ctttggcaat	gtggacagct	ctggcatcaa	gcacaacatc	ttcaaccccc	ccatcattgc	5100
cagatacatc	aggctgcacc	ccaccacta	cagcatcagg	agcaccctga	ggatggagct	5160
gatgggctgt	gacctgaaca	gctgcagcat	gcccctgggc	atggagagca	aggccatctc	5220
tgatgcccag	atcactgcc	gcagctactt	caccaacatg	tttgccacct	ggagccccag	5280
caaggccagg	ctgcacctgc	agggcaggag	caatgcctgg	aggccccagg	tcaacaaccc	5340
caaggagtgg	ctgcaggtgg	acttccagaa	gaccatgaag	gtgactgggg	tgaccacca	5400
gggggtgaag	agcctgctga	ccagcatgta	tgtgaaggag	ttcctgatca	gcagcagcca	5460
ggatggccac	cagtggaccc	tgttcttcca	gaatggcaag	gtgaagggtgt	tccagggcaa	5520
ccaggacagc	ttcacccctg	tggatgaacag	cctggacccc	cccctgctga	ccagatacct	5580
gaggattcac	ccccagagct	gggtgcacca	gattgccctg	aggatggagg	tgctgggctg	5640
tgaggcccag	gacctgtact	gacctcgagg	tgtgccttct	agttgccagc	catctgttgt	5700
ttgcccctcc	cccgtgcctt	ccttgaccct	ggaaggtgcc	actcccactg	tcctttccta	5760
ataaaatgag	gaaattgcat	cgcattgtct	gagtaggtgt	cattctattc	tggggggtgg	5820
ggtggggcag	gacagcaagg	gggaggattg	ggaagacaat	agcaggcatg	ctggggatgc	5880
ggtgggctct	atgggcacgt	ggcggccgca	ggaacccta	gtgatggagt	tggccactcc	5940
ctctctgcg	gctcgctcg	tcactgaggc	cgggcgacca	aaggtcgccc	gacggccggg	6000
ctttggccgg	gcggcctcag	tgagcgagcg	agcgcgcaga	gagggagtgg	ccaa	6054

<210> 30

<211> 6054

<212> DNA

<213> Adeno-Associated Virus 2

<400> 30

ttggccactc	cctctctgcg	cgctcgctcg	ctcactgagg	ccggccgggc	aaagcccggg	60
cgctgggcga	cctttggtcg	cccggcctca	gtgagcgagc	gagcgcgag	agagggagtg	120
gccaactcca	tcactagggg	ttcctgcggc	cgcacgcgtg	ttttcgaccc	ctctcacact	180
acctaaacca	cgccaggaca	acctctgctc	ctctccaccg	aaattccaag	gggtcgagtg	240

sequencelisting

gatgttggag gtggcatggg cccagagagg tctctgacct ctgccccagc tccaaggtca	300
gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc cattttaggg	360
acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagctgct	420
ggaggatggg aactgagggg ttggaagggg gcagggtgag cccagaaact cctgtgtgcc	480
tctgagcctg cagacgcgaa acgtcgaagc ctctcctggg ggtggggaga ggcccagagg	540
ataagtccag gatgttgatt tcttctcctg cctccaggaa tgtttgtgct cctgagatta	600
ttaaccagag caaacagaga gagtaaatgc tgccaagggc cacttggact tttgactgct	660
ttttaaaaat taacctgagc ctctcctggg ggtggggaga ggcccagagg ataagtccag	720
gatgttgatt tcttctcctg cctccaggaa tgtttgtgct cctgagatta ttaaccagag	780
caaacagaga gagtaaatgc tgccaagggc cacttggact tttgactgct ttttaaaaat	840
taacctggtc gactggacac aggacgtgt ggtttctgag ccagggggcg actcagatcc	900
cagccagtgg acttagcccc tgtttgctcc tccgataact ggggtgacct tggttaatat	960
tcaccagcag cctccccgt tgcccctctg gatccactgc ttaaatacgg acgaggacag	1020
ggccctgtct cctcagcttc aggcaccacc actgacctgg gacagtgaat cgtaagtatg	1080
cctttcactg cgagaggttc tggagaggct tctgagctcc ccatggcca ggcaggcagc	1140
aggtctgggg caggaggggg gttgtggagt gccttgactc ggggcctggc ccccccactc	1200
ctgtcttgca ggacaattgc cgtcttctgt ctctggggc atcctcctgc tggcaggcct	1260
gtgctgcctg gtccctgcga tcgccaccat gcagattgag ctgagcacct gcttcttcct	1320
gtgcctgctg aggttctgct tctctgccac caggagatac tacctggggg ctgtggagct	1380
gagctgggac tacatgcagt ctgacctggg ggagctgcct gtggatgcca ggttcccccc	1440
cagagtggcc aagagcttcc cttcaacac ctctgtggtg tacaagaaga ccctgtttgt	1500
ggagttcact gaccacctgt tcaacattgc caagcccagg ccccccctgga tgggcctgct	1560
gggccccacc atccaggctg aggtgtatga cactgtggtg atcacctga agaacatggc	1620
cagccaccct gtgagcctgc atgctgtggg ggtgagctac tggaaggcct ctgagggggc	1680
tgagtatgat gaccagacca gccagaggga gaaggaggat gacaaggtgt tccctggggg	1740
cagccacacc tatgtgtggc aggtgctgaa ggagaatggc cccatggcct ctgacccct	1800

sequencelisting

gtgcctgacc tacagctacc tgagccatgt ggacctggtg aaggacctga actctggcct	1860
gattggggcc ctgctggtgt gcagggaggg cagcctggcc aaggagaaga cccagaccct	1920
gcacaagttc atcctgctgt ttgctgtgtt tgatgagggc aagagctggc actctgaaac	1980
caagaacagc ctgatgcagg acagggatgc tgcctctgcc agggcctggc ccaagatgca	2040
cactgtgaat ggctatgtga acaggagcct gcctggcctg attggctgcc acaggaagtc	2100
tgtgtactgg catgtgattg gcatgggcac caccctgag gtgcacagca tcttcctgga	2160
gggccacacc ttcttggtca ggaaccacag gcaggccagc ctggagatca gccccatcac	2220
cttcctgact gcccagaccc tgctgatgga cctgggccag ttcttgctgt tctgccacat	2280
cagcagccac cagcatgatg gcatggaggc ctatgtgaag gtggacagct gccctgagga	2340
gccccagctg aggatgaaga acaatgagga ggctgaggac tatgatgatg acctgactga	2400
ctctgagatg gatgtggtga ggtttgatga tgacaacagc cccagcttca tccagatcag	2460
gtctgtggcc aagaagcacc ccaagacctg ggtgcactac attgctgctg aggaggagga	2520
ctgggactat gccccctgg tgctggcccc tgatgacagg agctacaaga gccagtacct	2580
gaacaatggc ccccagagga ttggcaggaa gtacaagaag gtcaggttca tggcctacac	2640
tgatgaaacc ttcaagacca gggaggccat ccagcatgag tctggcatcc tgggccccct	2700
gctgtatggg gaggtggggg acaccctgct gatcatcttc aagaaccagg ccagcaggcc	2760
ctacaacatc taccctcatg gcatcactga tgtgaggccc ctgtacagca ggaggctgcc	2820
caagggggtg aagcacctga aggacttccc catcctgcct ggggagatct tcaagtacaa	2880
gtggactgtg actgtggagg atggccccac caagtctgac cccaggtgcc tgaccagata	2940
ctacagcagc tttgtgaaca tggagaggga cctggcctct ggccctgattg gccccctgct	3000
gatctgctac aaggagtctg tggaccagag gggcaaccag atcatgtctg acaagaggaa	3060
tgtgatcctg ttctctgtgt ttgatgagaa caggagctgg tacctgactg agaacatcca	3120
gaggttcctg cccaaccctg ctgggggtgca gctggaggac cctgagttcc aggccagcaa	3180
catcatgcac agcatcaatg gctatgtgtt tgacagcctg cagctgtctg tgtgcctgca	3240
tgagggtggc tactggtaca tcctgagcat tggggcccag actgacttcc tgtctgtgtt	3300
cttctctggc tacaccttca agcacaagat ggtgtatgag gacaccctga ccctgttccc	3360

sequencelisting

cttctctggg gagactgtgt tcatgagcat ggagaaccct ggcctgtgga ttctgggctg	3420
ccacaactct gacttcagga acaggggcat gactgccctg ctgaaagtct ccagctgtga	3480
caagaacact ggggactact atgaggacag ctatgaggac atctctgcct acctgctgag	3540
caagaacaat gccattgagc ccaggagctt cagccagaac cccccagtgc tgaagaggca	3600
ccagagggag atcaccagga ccaccctgca gtctgaccag gaggagattg actatgatga	3660
caccatctct gtggagatga agaaggagga ctttgacatc tacgacgagg acgagaacca	3720
gagccccagg agcttcaga agaagaccag gcactacttc attgctgctg tggagaggct	3780
gtgggactat ggcattgagc gcagccccca tgtgctgagg aacagggccc agtctggctc	3840
tgtgccccag ttcaagaagg tgggtgtcca ggagttcact gatggcagct tcaccagacc	3900
cctgtacaga ggggagctga atgagcacct gggcctgctg ggcccctaca tcagggctga	3960
ggtggaggac aacatcatgg tgaccttcag gaaccaggcc agcaggccct acagcttcta	4020
cagcagcctg atcagctatg aggaggacca gaggcagggg gctgagccca ggaagaactt	4080
tgtgaagccc aatgaaacca agacctactt ctggaagggtg cagcaccaca tggccccac	4140
caaggatgag ttgactgca aggcctgggc ctacttctct gatgtggacc tggagaagga	4200
tgtgcactct ggcctgattg gccccctgct ggtgtgccac accaacaccc tgaaccctgc	4260
ccatggcagg caggtgactg tgcaggagtt tgccctgttc ttcaccatct ttgatgaaac	4320
caagagctgg tacttcactg agaacatgga gaggaactgc agggccccct gcaacatcca	4380
gatggaggac cccaccttca aggagaacta caggttccat gccatcaatg gctacatcat	4440
ggacaccctg cctggcctgg tgatggccca ggaccagagg atcaggtggt acctgctgag	4500
catgggcagc aatgagaaca tccacagcat ccacttctct ggccatgtgt tctactgtgag	4560
gaagaaggag gagtacaaga tggccctgta caacctgtac cctgggggtgt ttgagactgt	4620
ggagatgctg cccagcaagg ctggcatctg gaggggtggag tgcctgattg gggagcacct	4680
gcatgctggc atgagcacc tgttcctgggt gtacagcaac aagtgccaga cccccctggg	4740
catggcctct ggccacatca gggacttcca gatcactgcc tctggccagt atggccagt	4800
ggcccccaag ctggccaggc tgcactactc tggcagcatc aatgcctgga gcaccaagga	4860
gcccttcagc tggatcaagg tggacctgct ggcccccatg atcatccatg gcatcaagac	4920

sequencelisting

ccagggggcc aggcagaagt tcagcagcct gtacatcagc cagttcatca tcatgtacag	4980
cctggatggc aagaagtggc agacctacag gggcaacagc actggcaccc tgatggtgtt	5040
ctttggcaat gtggacagct ctggcatcaa gcacaacatc ttcaaccccc ccatcattgc	5100
cagatacatc aggctgcacc ccaccacta cagcatcagg agcaccctga ggatggagct	5160
gatgggctgt gacctgaaca gctgcagcat gcccctgggc atggagagca aggccatctc	5220
tgatgcccag atcactgcca gcagctactt caccaacatg tttgccacct ggagccccag	5280
caaggccagg ctgcacctgc agggcaggag caatgcctgg aggccccagg tcaacaaccc	5340
caaggagtgg ctgcaggtgg acttccagaa gaccatgaag gtgactgggg tgaccacca	5400
gggggtgaag agcctgctga ccagcatgta tgtgaaggag ttcctgatca gcagcagcca	5460
ggatggccac cagtggacct tgttcttcca gaatggcaag gtgaagggtgt tccagggcaa	5520
ccaggacagc ttcacccctg tggatgaacag cctggacccc cccctgctga ccagatacct	5580
gaggattcac cccagagct ggggtcacca gattgccctg aggatggagg tgctgggctg	5640
tgaggcccag gacctgtact gacctcgagg tgtgccttct agttgccagc catctgttgt	5700
ttgcccctcc cccgtgcctt ccttgaccct ggaaggtgcc actcccactg tcctttccta	5760
ataaaatgag gaaattgcat cgcattgtct gtagtagtgt cattctattc tgggggggtgg	5820
ggtggggcag gacagcaagg gggaggattg ggaagacaat agcaggcatg ctggggatgc	5880
ggtgggctct atggggcacgt ggcggccgca ggaacccta gtgatggagt tggccactcc	5940
ctctctgcg gctcgctcg tcactgaggc cgggcgacca aaggtcgccc gacgccggg	6000
ctttgcccgg gcggcctcag tgagcgagcg agcgcgcaga gagggagtgg ccaa	6054

<210> 31
 <211> 5504
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 31	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgccgggc aaagcccggg	60
cgtcgggcga ctttggctcg cccggcctca gtgagcgagc gagcgcgag agagggagt	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgacct ctctcacact	180

sequencelisting						
acctaaacca	cgccaggaca	acctctgctc	ctctccaccg	aaattccaag	gggtcgagtg	240
gatgttggag	gtggcatggg	cccagagagg	tctctgacct	ctgccccagc	tccaaggtca	300
gcaggcaggg	agggctgtgt	gtttgctgtt	tgctgcttgc	aatgtttgcc	cattttaggg	360
acatgagtag	gctgaagttt	gttcagtgtg	gacttcagag	gcagcacaca	aacagctgct	420
ggaggatggg	aactgagggg	ttggaagggg	gcagggtgag	cccagaaact	cctgtgtgcc	480
tctgagcctg	cagacgcgaa	acgtcgactg	gacacaggac	gctgtggttt	ctgagccagg	540
gggcgactca	gatcccagcc	agtggactta	gcccctgttt	gctcctccga	taactggggg	600
gaccttggtt	aatattcacc	agcagcctcc	cccgttgccc	ctctggatcc	actgcttaaa	660
tacggacgag	gacagggccc	tgtctcctca	gcttcaggca	ccaccactga	cctgggacag	720
tgaatcgca	tcgccaccat	gcagattgag	ctgagcacct	gcttcttcct	gtgcctgctg	780
aggttctgct	tctctgccac	caggagatac	tacctggggg	ctgtggagct	gagctgggac	840
tacatgcagt	ctgacctggg	ggagctgcct	gtggatgcca	ggttcccccc	cagagtgccc	900
aagagcttcc	ccttcaacac	ctctgtggtg	tacaagaaga	ccctgtttgt	ggagttcact	960
gaccacctgt	tcaacattgc	caagcccagg	ccccctgga	tgggcctgct	gggccccacc	1020
atccaggctg	aggtgtatga	cactgtggtg	atcacctga	agaacatggc	cagccaccct	1080
gtgagcctgc	atgctgtggg	ggtgagctac	tggaaggcct	ctgagggggc	tgagtatgat	1140
gaccagacca	gccagaggga	gaaggaggat	gacaaggtgt	tccctggggg	cagccacacc	1200
tatgtgtggc	aggtgctgaa	ggagaatggc	cccatggcct	ctgaccccct	gtgcctgacc	1260
tacagctacc	tgagccatgt	ggacctggtg	aaggacctga	actctggcct	gattggggcc	1320
ctgctggtgt	gcagggaggg	cagcctggcc	aaggagaaga	cccagaccct	gcacaagttc	1380
atcctgctgt	ttgctgtgtt	tgatgagggc	aagagctggc	actctgaaac	caagaacagc	1440
ctgatgcagg	acagggatgc	tgcccttgcc	agggcctggc	ccaagatgca	cactgtgaat	1500
ggctatgtga	acaggagcct	gcctggcctg	attggctgcc	acaggaagtc	tgtgtactgg	1560
catgtgattg	gcatgggcac	caccctgag	gtgcacagca	tcttcctgga	gggccacacc	1620
ttcctggtca	ggaaccacag	gcaggccagc	ctggagatca	gccccatcac	cttcctgact	1680
gcccagaccc	tgctgatgga	cctgggccag	ttcctgctgt	tctgccacat	cagcagccac	1740

sequencelisting

cagcatgatg gcatggaggc ctatgtgaag gtggacagct gccctgagga gccccagctg	1800
aggatgaaga acaatgagga ggctgaggac tatgatgatg acctgactga ctctgagatg	1860
gatgtgggtga ggtttgatga tgacaacagc cccagcttca tccagatcag gtctgtggcc	1920
aagaagcacc ccaagacctg ggtgcactac attgctgctg aggaggagga ctgggactat	1980
gccccctgg tgctggcccc tgatgacagg agctacaaga gccagtacct gaacaatggc	2040
ccccagagga ttggcaggaa gtacaagaag gtcaggttca tggcctacac tgatgaaacc	2100
ttcaagacca gggaggccat ccagcatgag tctggcatcc tgggccccct gctgtatggg	2160
gaggtggggg acaccctgct gatcatcttc aagaaccagg ccagcaggcc ctacaacatc	2220
tacccccatg gcatcactga tgtgaggccc ctgtacagca ggaggctgcc caaggggggtg	2280
aagcacctga aggacttccc catcctgcct ggggagatct tcaagtacaa gtggactgtg	2340
actgtggagg atggccccac caagtctgac cccagggtgcc tgaccagata ctacagcagc	2400
tttgtgaaca tggagagggg cctggcctct ggcctgattg gccccctgct gatctgctac	2460
aaggagtctg tggaccagag gggcaaccag atcatgtctg acaagaggaa tgtgatcctg	2520
ttctctgtgt ttgatgagaa caggagctgg tacctgactg agaacatcca gaggttcctg	2580
cccaaccctg ctgggggtgca gctggaggac cctgagttcc aggccagcaa catcatgcac	2640
agcatcaatg gctatgtgtt tgacagcctg cagctgtctg tgtgcctgca tgagggtggcc	2700
tactgggtaca tcctgagcat tggggcccag actgacttcc tgtctgtgtt cttctctggc	2760
tacaccttca agcacaagat ggtgtatgag gacaccctga ccctgtttcc cttctctggg	2820
gagactgtgt tcatgagcat ggagaaccct ggcctgtgga ttctgggctg ccacaactct	2880
gacttcagga acaggggcat gactgccctg ctgaaagtct ccagctgtga caagaacact	2940
ggggactact atgaggacag ctatgaggac atctctgcct acctgctgag caagaacaat	3000
gccattgagc ccaggagctt cagccagaac cccccagtgc tgaagaggca ccagagggag	3060
atcaccagga ccaccctgca gtctgaccag gaggagattg actatgatga caccatctct	3120
gtggagatga agaaggagga ctttgacatc tacgacgagg acgagaacca gagccccagg	3180
agcttccaga agaagaccag gcactacttc attgctgctg tggagaggct gtgggactat	3240
ggcatgagca gcagccccca tgtgctgagg aacaggggcc agtctggctc tgtgccccag	3300

sequencelisting						
ttcaagaagg	tggtgttcca	ggagttcact	gatggcagct	tcacccagcc	cctgtacaga	3360
ggggagctga	atgagcacct	gggcctgctg	ggcccctaca	tcagggtga	ggtggaggac	3420
aacatcatgg	tgaccttcag	gaaccaggcc	agcaggccct	acagcttcta	cagcagcctg	3480
atcagctatg	aggaggacca	gaggcagggg	gctgagccca	ggaagaactt	tgtgaagccc	3540
aatgaaacca	agacctactt	ctggaaggtg	cagcaccaca	tggccccccac	caaggatgag	3600
tttgactgca	aggcctgggc	ctactttctt	gatgtggacc	tggagaagga	tgtgcactct	3660
ggcctgattg	gccccctgct	ggtgtgccac	accaacaccc	tgaaccctgc	ccatggcagg	3720
caggtgactg	tgcaggagtt	tgccctgttc	ttcaccatct	ttgatgaaac	caagagctgg	3780
tactttactg	agaacatgga	gaggaactgc	agggccccct	gcaacatcca	gatggaggac	3840
cccaccttca	aggagaacta	caggttccat	gccatcaatg	gctacatcat	ggacaccctg	3900
cctggcctgg	tgatggccca	ggaccagagg	atcaggtggt	acctgctgag	catgggcagc	3960
aatgagaaca	tccacagcat	ccactttctt	ggccatgtgt	tcactgtgag	gaagaaggag	4020
gagtacaaga	tggccctgta	caacctgtac	cctgggggtgt	ttgagactgt	ggagatgctg	4080
cccagcaagg	ctggcatctg	gagggtggag	tgcttgattg	gggagcacct	gcatgctggc	4140
atgagcacc	tgttcctggt	gtacagcaac	aagtgccaga	ccccctggg	catggcctct	4200
ggccacatca	gggacttcca	gatcactgcc	tctggccagt	atggccagtg	ggcccccaag	4260
ctggccaggc	tgactactc	tggcagcatc	aatgcctgga	gcaccaagga	gcccttcagc	4320
tggatcaagg	tggacctgct	ggcccccatg	atcatccatg	gcatcaagac	ccagggggcc	4380
aggcagaagt	tcagcagcct	gtacatcagc	cagttcatca	tcatgtacag	cctggatggc	4440
aagaagtggc	agacctacag	gggcaacagc	actggcaccc	tgatggtggt	ctttggcaat	4500
gtggacagct	ctggcatcaa	gcacaacatc	ttcaaccccc	ccatcattgc	cagatacatc	4560
aggctgcacc	ccaccacta	cagcatcagg	agcaccctga	ggatggagct	gatgggctgt	4620
gacctgaaca	gctgcagcat	gcccctgggc	atggagagca	aggccatctc	tgatgcccag	4680
atcactgcca	gcagctactt	caccaacatg	tttgccacct	ggagccccag	caaggccagg	4740
ctgcacctgc	agggcaggag	caatgcctgg	aggccccagg	tcaacaacc	caaggagtgg	4800
ctgcaggtgg	acttccagaa	gaccatgaag	gtgactgggg	tgaccacca	gggggtgaag	4860

sequencelisting

agcctgctga ccagcatgta tgtgaaggag ttcctgatca gcagcagcca ggatggccac	4920
cagtggaccc tgttcttcca gaatggcaag gtgaagggtgt tccagggcaa ccaggacagc	4980
ttcacccctg tgggtgaacag cctggacccc cccctgctga ccagatacct gaggattcac	5040
ccccagagct ggggtgcacca gattgccctg aggatggagg tgctgggctg tgaggcccag	5100
gacctgtact gacctcgagg tgtgccttct agttgccagc catctgttgt ttgccccctcc	5160
cccgtgcctt ccttgaccct ggaaggtgcc actcccactg tcctttccta ataaaatgag	5220
gaaattgcat cgcatgtgtct gagtaggtgt cattctattc tgggggggtgg ggtggggcag	5280
gacagcaagg gggaggattg ggaagacaat agcaggcatg ctgggggatgc ggtgggctct	5340
atgggcacgt ggcgggccga ggaacccta gtgatggagt tggccactcc ctctctgcgc	5400
gctcgctcgc tctactgaggc cgggcgacca aaggctcgccc gacgcccggg ctttgcccgg	5460
gcggcctcag tgagcgagcg agcgcgaga gagggagtgg ccaa	5504

<210> 32

<211> 5507

<212> DNA

<213> Adeno-Associated Virus 2

<400> 32

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cttttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tctactagggg ttcctgcggc cgcacgcgtg ttttcgacct ctctcacact	180
acctaaacca cgccaggaca acctctgctc ctctccaccg aaattccaag gggtcgagtg	240
gatgttggag gtggcatggg cccagagagg tctctgacct ctgccccagc tccaaggtca	300
gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc catttttaggg	360
acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagctgct	420
ggaggatggg aactgagggg ttggaagggg gcagggtgag ccagaaaact cctgtgtgcc	480
tctgagcctg cagacgcgaa acgtcgacga tcttgctacc agtggaacag ccactaagga	540
ttctgcagtg agagcagagg gccagctaag tgggtactctc ccagagactg tctgactcac	600
gccaccccct ccaccttgga cacaggacgc tgttggtttct gagccaggta caatgactcc	660
tttcggtaag tgcaagtggaa gctgtacact gcccaggcaa agcgtccggg cagcgtaggc	720

sequencelisting

gggcgactca gatcccagcc agtggactta gcccctgttt gctcctccga taactgggggt	780
gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc actgcttaaa	840
tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga cctgggacag	900
tgaatcgca tcgccacat gcagattgag ctgagcacct gcttcttcct gtgcctgctg	960
aggttctgct tctctgccac caggagatac tacctggggg ctgtggagct gagctgggac	1020
tacatgcagt ctgacctggg ggagctgcct gtggatgcca gggtccccc cagagtgccc	1080
aagagcttcc cttcaacac ctctgtggtg tacaagaaga ccctgtttgt ggagttcact	1140
gaccacctgt tcaacattgc caagcccagg cccccctgga tgggcctgct gggccccacc	1200
atccaggctg aggtgtatga cactgtggtg atcacctga agaacatggc cagccaccct	1260
gtgagcctgc atgctgtggg ggtgagctac tggaaggcct ctgagggggc tgagtatgat	1320
gaccagacca gccagagga gaaggaggat gacaaggtgt tccctggggg cagccacacc	1380
tatgtgtggc aggtgctgaa ggagaatggc cccatggcct ctgacccct gtgcctgacc	1440
tacagctacc tgagccatgt ggacctggtg aaggacctga actctggcct gattggggcc	1500
ctgctggtgt gcagggaggg cagcctggcc aaggagaaga ccagaccct gcacaagttc	1560
atcctgctgt ttgctgtgtt tgatgagggc aagagctggc actctgaaac caagaacagc	1620
ctgatgcagg acagggatgc tgcctctgcc agggcctggc ccaagatgca cactgtgaat	1680
ggctatgtga acaggagcct gcctggcctg attggctgcc acaggaagtc tgtgtactgg	1740
catgtgattg gcatgggcac caccctgag gtgcacagca tcttcctgga gggccacacc	1800
ttcctggtca ggaaccacag gcaggccagc ctggagatca gcccacac cttcctgact	1860
gcccagacc tgctgatgga cctgggccag ttcctgctgt tctgccacat cagcagccac	1920
cagcatgatg gcatggaggc ctatgtgaag gtggacagct gccctgagga gcccagctg	1980
aggatgaaga acaatgagga ggctgaggac tatgatgatg acctgactga ctctgagatg	2040
gatgtggtga ggtttgatga tgacaacagc cccagcttca tccagatcag gtctgtggcc	2100
aagaagcacc ccaagacctg ggtgcactac attgctgctg aggaggagga ctgggactat	2160
gccccctgg tgctggcccc tgatgacagg agctacaaga gccagtacct gaacaatggc	2220
ccccagagga ttggcaggaa gtacaagaag gtcaggttca tggcctacac tgatgaaacc	2280

sequencelisting

ttcaagacca	gggaggccat	ccagcatgag	tctggcatcc	tgggccccct	gctgtatggg	2340
gaggtggggg	acaccctgct	gatcatcttc	aagaaccagg	ccagcaggcc	ctacaacatc	2400
tacccccatg	gcatcactga	tgtgaggccc	ctgtacagca	ggaggctgcc	caaggggggtg	2460
aagcacctga	aggacttccc	catcctgcct	ggggagatct	tcaagtacaa	gtggactgtg	2520
actgtggagg	atggccccac	caagtctgac	cccaggtgcc	tgaccagata	ctacagcagc	2580
tttgtgaaca	tggagagggg	cctggcctct	ggcctgattg	gccccctgct	gatctgctac	2640
aaggagtctg	tggaccagag	gggcaaccag	atcatgtctg	acaagaggaa	tgtgatcctg	2700
ttctctgtgt	ttgatgagaa	caggagctgg	tacctgactg	agaacatcca	gaggttcctg	2760
cccaaccctg	ctgggggtgca	gctggaggac	cctgagttcc	aggccagcaa	catcatgcac	2820
agcatcaatg	gctatgtggt	tgacagcctg	cagctgtctg	tgtgcctgca	tgaggtggcc	2880
tactggtaca	tcctgagcat	tggggcccag	actgacttcc	tgtctgtggt	cttctctggc	2940
tacaccttca	agcacaagat	ggtgtatgag	gacaccctga	ccctgttccc	cttctctggg	3000
gagactgtgt	tcatgagcat	ggagaaccct	ggcctgtgga	ttctgggctg	ccacaactct	3060
gacttcagga	acaggggcat	gactgccctg	ctgaaagtct	ccagctgtga	caagaacact	3120
ggggactact	atgaggacag	ctatgaggac	atctctgcct	acctgctgag	caagaacaat	3180
gccattgagc	ccaggagctt	cagccagaac	ccccagtgcc	tgaagaggca	ccagagggag	3240
atcaccagga	ccaccctgca	gtctgaccag	gaggagattg	actatgatga	caccatctct	3300
gtggagatga	agaaggagga	ctttgacatc	tacgacgagg	acgagaacca	gagccccagg	3360
agcttccaga	agaagaccag	gcactacttc	attgctgctg	tggagaggct	gtgggactat	3420
ggcatgagca	gcagccccca	tgtgctgagg	aacaggggcc	agtctggctc	tgtgccccag	3480
ttcaagaagg	tggtgttcca	ggagttcact	gatggcagct	tcaccagcc	cctgtacaga	3540
ggggagctga	atgagcacct	gggcctgctg	ggcccctaca	tcagggtga	ggtggaggac	3600
aacatcatgg	tgaccttcag	gaaccaggcc	agcaggccct	acagcttcta	cagcagcctg	3660
atcagctatg	aggaggacca	gaggcagggg	gctgagccca	ggaagaactt	tgtgaagccc	3720
aatgaaacca	agacctactt	ctggaaggtg	cagcaccaca	tggcccccac	caaggatgag	3780
tttgactgca	aggcctgggc	ctacttctct	gatgtggacc	tggagaagga	tgtgcactct	3840

sequencelisting

ggcctgattg	gccccctgct	ggtgtgccac	accaacaccc	tgaaccctgc	ccatggcagg	3900
caggtgactg	tgcaggagtt	tgccctgttc	ttcaccatct	ttgatgaaac	caagagctgg	3960
tacttcactg	agaacatgga	gaggaactgc	aggggccccct	gcaacatcca	gatggaggac	4020
cccaccttca	aggagaacta	caggttccat	gccatcaatg	gctacatcat	ggacaccctg	4080
cctggcctgg	tgatggccca	ggaccagagg	atcaggtggg	acctgctgag	catgggcagc	4140
aatgagaaca	tccacagcat	ccacttctct	ggccatgtgt	tcactgtgag	gaagaaggag	4200
gagtacaaga	tggccctgta	caacctgtac	cctgggggtgt	ttgagactgt	ggagatgctg	4260
cccagcaagg	ctggcatctg	gagggtggag	tgccctgattg	gggagcacct	gcatgctggc	4320
atgagcacc	tgttcctggg	gtacagcaac	aagtgccaga	ccccctggg	catggcctct	4380
ggccacatca	gggacttcca	gatcactgcc	tctggccagt	atggccagt	ggcccccaag	4440
ctggccaggc	tgactactc	tggcagcatc	aatgcctgga	gcaccaagga	gcccttcagc	4500
tggatcaagg	tggacctgct	ggcccccatg	atcatccatg	gcatcaagac	ccagggggcc	4560
aggcagaagt	tcagcagcct	gtacatcagc	cagttcatca	tcatgtacag	cctggatggc	4620
aagaagtggc	agacctacag	gggcaacagc	actggcacc	tgatggtgtt	ctttggcaat	4680
gtggacagct	ctggcatcaa	gcacaacatc	ttcaaccccc	ccatcattgc	cagatacatc	4740
aggctgcacc	ccaccacta	cagcatcagg	agcaccctga	ggatggagct	gatgggctgt	4800
gacctgaaca	gctgcagcat	gcccctgggc	atggagagca	aggccatctc	tgatgcccag	4860
atcactgcca	gcagctactt	caccaacatg	tttgccacct	ggagccccag	caaggccagg	4920
ctgcacctgc	agggcaggag	caatgcctgg	aggccccagg	tcaacaaccc	caaggagtgg	4980
ctgcaggtgg	acttccagaa	gaccatgaag	gtgactgggg	tgaccacca	gggggtgaag	5040
agcctgctga	ccagcatgta	tgtgaaggag	ttcctgatca	gcagcagcca	ggatggccac	5100
cagtggacc	tgttcttcca	gaatggcaag	gtgaaggtgt	tccagggcaa	ccaggacagc	5160
ttcacccctg	tggatgaacag	cctggacccc	cccctgctga	ccagatacct	gaggattcac	5220
ccccagagct	gggtgcacca	gattgccctg	aggatggagg	tgctgggctg	tgaggcccag	5280
gacctgtact	gacctcgagg	aataaaggaa	atttattttc	attgcaatag	tgtgttggtt	5340
ttttgtgtca	cgtggcggcc	gcaggaaccc	ctagtgatgg	agttggccac	tcctctctg	5400

sequencelisting

```

cgcgctcgct cgctcactga ggccggggcga ccaaaggtcg cccgacgccc gggctttgcc 5460
cgggcggcct cagtgagcga gcgagcgcg c agagagggag tggccaa 5507

```

```

<210> 33
<211> 5311
<212> DNA
<213> Adeno-Associated Virus 2

```

```

<400> 33
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg 60
cgtcggggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg 120
gccaactcca tcactagggg ttcttgcggc cgcacgctg ttttcgacgc agagaggtct 180
ctgacctctg cccagctcc aaggtcagca ggcagggagg gctgtgtgtt tgctgtttgc 240
tgcttgcaat gtttgcccat tttagggaca tgagtaggct gaagtttggt cagtgtggac 300
ttcagaggca gcacacaaac agccagagag gtctctgacc tctgccccag ctccaaggtc 360
agcaggcagg gagggctgtg tgtttgctgt ttgctgcttg caatgtttgc ccattttagg 420
gacatgagta ggctgaagtt tgttcagtgt ggacttcaga ggcagcacac aaacagcacg 480
cgaaacgtcg actggacaca ggacgctgtg gtttctgagc cagggggcga ctcatatccc 540
agccagtgga cttagcccct gtttgctcct ccgataactg gggtgacctt ggttaatat 600
caccagcagc ctccccggtt gcccctctgg atccactgct taaatacggg cgaggacagg 660
gccctgtctc ctgagcttca ggcaccacca ctgacctggg acagtgaatc gcgatcgcca 720
ccatgcagat tgagctgagc acctgcttct tcctgtgcct gctgaggttc tgcttctctg 780
ccaccaggag atactacctg ggggctgtgg agctgagctg ggactacatg cagtctgacc 840
tggggggagct gcctgtggat gccaggttcc cccccagagt gcccaagagc ttccccttca 900
acacctctgt ggtgtacaag aagaccctgt ttgtggagtt cactgaccac ctgttcaaca 960
ttgccaagcc caggcccccc tggatgggccc tgctgggccc caccatccag gctgaggtgt 1020
atgacactgt ggtgatcacc ctgaagaaca tggccagcca ccctgtgagc ctgcatgctg 1080
tggggggtgag ctactggaag gcctctgagg gggctgagta tgatgaccag accagccaga 1140
gggagaagga ggatgacaag gtgttccctg ggggcagcca cacctatgtg tggcaggtgc 1200

```

sequencelisting

tgaaggagaa tggcccatg gcctctgacc ccctgtgcct gacctacagc tacctgagcc	1260
atgtggacct ggtgaaggac ctgaactctg gcctgattgg ggccctgctg gtgtgcaggg	1320
agggcagcct ggccaaggag aagaccaga ccctgcacaa gttcatcctg ctgtttgctg	1380
tgtttgatga gggcaagagc tggcactctg aaaccaagaa cagcctgatg caggacaggg	1440
atgctgcctc tgccagggcc tggcccaaga tgcacactgt gaatggctat gtgaacagga	1500
gcctgcctgg cctgattggc tgccacagga agtctgtgta ctggcatgtg attggcatgg	1560
gcaccacccc tgaggtgcac agcatcttcc tggagggcca caccttcctg gtcaggaacc	1620
acaggcaggc cagcctggag atcagcccca tcaccttctt gactgcccag accctgctga	1680
tggacctggg ccagttcctg ctgttctgcc acatcagcag ccaccagcat gatggcatgg	1740
aggcctatgt gaaggtggac agctgccctg aggagcccca gctgaggatg aagaacaatg	1800
aggaggctga ggactatgat gatgacctga ctgactctga gatggatgtg gtgaggtttg	1860
atgatgacaa cagccccagc ttcatccaga tcaggtctgt ggccaagaag caccacaaga	1920
cctgggtgca ctacattgct gctgaggagg aggactggga ctatgcccc ctggtgctgg	1980
cccctgatga caggagctac aagagccagt acctgaacaa tggccccagc aggattggca	2040
ggaagtacaa gaaggtcagg ttcatggcct acactgatga aaccttcaag accaggagg	2100
ccatccagca tgagtctggc atcctgggcc ccctgctgta tggggagggtg ggggacaccc	2160
tgctgatcat cttcaagaac caggccagca ggccctacaa catctacccc catggcatca	2220
ctgatgtgag gccctgtac agcaggaggc tgcccaaggg ggtgaagcac ctgaaggact	2280
tccccatcct gcctggggag atcttcaagt acaagtggac tgtgactgtg gaggatggcc	2340
ccaccaagtc tgaccccagg tgcctgacca gatactacag cagctttgtg aacatggaga	2400
gggacctggc ctctggcctg attggcccc tgctgatctg ctacaaggag tctgtggacc	2460
agaggggcaa ccagatcatg tctgacaaga ggaatgtgat cctgttctct gtgtttgatg	2520
agaacaggag ctggtacctg actgagaaca tccagagggt cctgcccac cctgctgggg	2580
tgcagctgga ggacctgag ttccaggcca gcaacatcat gcacagcatc aatggctatg	2640
tgtttgacag cctgcagctg tctgtgtgcc tgcatgaggt ggccactagg tacatcctga	2700
gcattggggc ccagactgac ttcctgtctg tgttcttctc tggctacacc ttcaagcaca	2760

sequencelisting						
agatggtgta	tgaggacacc	ctgaccctgt	tcccccttctc	tggggagact	gtgttcatga	2820
gcatggagaa	ccctggcctg	tggattcttg	gctgccacaa	ctctgacttc	aggaacaggg	2880
gcatgactgc	cctgctgaaa	gtctccagct	gtgacaagaa	cactggggac	tactatgagg	2940
acagctatga	ggacatctct	gcctacctgc	tgagcaagaa	caatgccatt	gagcccagga	3000
gcttcagcca	gaacccccca	gtgctgaaga	ggcaccagag	ggagatcacc	aggaccaccc	3060
tgcagtctga	ccaggaggag	attgactatg	atgacaccat	ctctgtggag	atgaagaagg	3120
aggactttga	catctacgac	gaggacgaga	accagagccc	caggagcttc	cagaagaaga	3180
ccaggcacta	cttcattgct	gctgtggaga	ggctgtggga	ctatggcatg	agcagcagcc	3240
cccatgtgct	gaggaacagg	gcccagtctg	gctctgtgcc	ccagttcaag	aaggtggtgt	3300
tccaggagtt	cactgatggc	agcttcaccc	agcccctgta	cagagggggag	ctgaatgagc	3360
acctgggcct	gctgggcccc	tacatcaggg	ctgaggtgga	ggacaacatc	atggtgacct	3420
tcaggaacca	ggccagcagg	ccctacagct	tctacagcag	cctgatcagc	tatgaggagg	3480
accagaggca	gggggctgag	cccaggaaga	actttgtgaa	gcccacatgaa	accaagacct	3540
acttctggaa	ggtgcagcac	cacatggccc	ccaccaagga	tgagtttgac	tgcaaggcct	3600
gggcctactt	ctctgatgtg	gacctggaga	aggatgtgca	ctctggcctg	attggcccc	3660
tgctggtgtg	ccacaccaac	accctgaacc	ctgcccattg	caggcaggtg	actgtgcagg	3720
agtttgccct	gttcttcacc	atctttgatg	aaaccaagag	ctggtacttc	actgagaaca	3780
tggagaggaa	ctgcagggcc	ccctgcaaca	tccagatgga	ggacccccacc	ttcaaggaga	3840
actacaggtt	ccatgccatc	aatggctaca	tcatggacac	cctgcctggc	ctggtgatgg	3900
cccaggacca	gaggatcagg	tggtacctgc	tgagcatggg	cagcaatgag	aacatccaca	3960
gcatccactt	ctctggccat	gtgttcactg	tgaggaagaa	ggaggagtac	aagatggccc	4020
tgtacaacct	gtaccctggg	gtgtttgaga	ctgtggagat	gctgcccagc	aaggctggca	4080
tctggagggt	ggagtgcctg	attggggagc	acctgcatgc	tggcatgagc	accctgttcc	4140
tgggtgtacag	caacaagtgc	cagaccccc	tgggcatggc	ctctggccac	atcagggact	4200
tccagatcac	tgctctggc	cagtatggcc	agtgggcccc	caagctggcc	aggctgcact	4260
actctggcag	catcaatgcc	tggagcacca	aggagccctt	cagctggatc	aaggtggacc	4320

sequencelisting

tgctggcccc catgatcatc catggcatca agaccaggg ggccaggcag aagttcagca	4380
gcctgtacat cagccagttc atcatcatgt acagcctgga tggcaagaag tggcagacct	4440
acaggggcaa cagcactggc accctgatgg tgttctttgg caatgtggac agctctggca	4500
tcaagcacia catcttcaac cccccatca ttgccagata catcaggctg caccacccc	4560
actacagcat caggagcacc ctgaggatgg agctgatggg ctgtgacctg aacagctgca	4620
gcatgcccct gggcatggag agcaaggcca tctctgatgc ccagatcact gccagcagct	4680
acttcaccaa catgtttgcc acctggagcc ccagcaaggc caggctgcac ctgcagggca	4740
ggagcaatgc ctggaggccc caggtcaaca accccaagga gtggctgcag gtggacttcc	4800
agaagaccat gaaggtgact ggggtgacca ccaggggggt gaagagcctg ctgaccagca	4860
tgtatgtgaa ggagttcctg atcagcagca gccaggatgg ccaccagtgg accctgttct	4920
tccagaatgg caaggtgaag gtgttccagg gcaaccagga cagcttcacc cctgtggtga	4980
acagcctgga cccccctg ctgaccagat acctgaggat tcaccccag agctgggtgc	5040
accagattgc cctgaggatg gaggtgctgg gctgtgaggc ccaggacctg tactgacctc	5100
gaggaataaa ggaaatttat tttcattgca atagtgtgtt ggTTTTTgt gtcacgtggc	5160
ggccgcagga acccctagt atggagttgg ccactccctc tctgcgcgct cgctcgctca	5220
ctgaggccgg gcgaccaaag gtcgcccgc gcccgggctt tgcccgggcg gcctcagtga	5280
gcgagcgagc gcgcagagag ggagtggcca a	5311

<210> 34
 <211> 5156
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 34	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgctgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcttgcggc cgcacgcgtg ttttcgacca gagaggtctc	180
tgacctctgc cccagctcca aggtcagcag gcaggagggg ctgtgtgttt gctgtttgct	240
gcttgcaatg tttgcccatt ttagggacat gagtaggctg aagtttgttc agtgtggact	300
tcagaggcag cacacaaaca gcacgcgaaa cgctgactgg acacaggacg ctgtggtttc	360

sequencelisting

tgagccaggg ggcgactcag atcccagcca gtggacttag cccctgtttg ctctccgat	420
aactgggggtg accttggtta atattcacca gcagcctccc ccgttgcccc tctggatcca	480
ctgcttaaata acggacgagg acagggccct gtctcctcag cttcaggcac caccactgac	540
ctgggacagt gaatcgcgat cgccaccatg cagattgagc tgagcacctg cttcttcctg	600
tgcctgctga ggttctgctt ctctgccacc aggagatact acctgggggc tgtggagctg	660
agctgggact acatgcagtc tgacctgggg gagctgcctg tggatgccag gttccccccc	720
agagtgccca agagcttccc cttcaacacc tctgtggtgt acaagaagac cctgtttgtg	780
gagttcactg accacctgtt caacattgcc aagcccaggc cccctggat gggcctgctg	840
ggccccacca tccaggctga ggtgtatgac actgtggtga tcaccctgaa gaacatggcc	900
agccaccctg tgagcctgca tgctgtgggg gtgagctact ggaaggcctc tgagggggct	960
gagtatgatg accagaccag ccagaggag aaggaggatg acaaggtgtt ccctgggggc	1020
agccacacct atgtgtggca ggtgctgaag gagaatggcc ccatggcctc tgaccccctg	1080
tgcctgacct acagctacct gagccatgtg gacctggtga aggacctgaa ctctggcctg	1140
attggggccc tgctggtgtg caggaggggc agcctggcca aggagaagac ccagaccctg	1200
cacaagttca tcctgctgtt tgctgtgttt gatgagggca agagctggca ctctgaaacc	1260
aagaacagcc tgatgcagga cagggatgct gcctctgcca gggcctggcc caagatgcac	1320
actgtgaatg gctatgtgaa caggagcctg cctggcctga ttggctgcca caggaagtct	1380
gtgtactggc atgtgattgg catgggcacc acccctgagg tgcacagcat cttcctggag	1440
ggccacacct tcctggtcag gaaccacagg caggccagcc tggagatcag ccccatcacc	1500
ttcctgactg cccagaccct gctgatggac ctgggccagt tcctgctgtt ctgccacatc	1560
agcagccacc agcatgatgg catggaggcc tatgtgaagg tggacagctg ccctgaggag	1620
ccccagctga ggatgaagaa caatgaggag gctgaggact atgatgatga cctgactgac	1680
tctgagatgg atgtggtgag gtttgatgat gacaacagcc ccagcttcat ccagatcagg	1740
tctgtggcca agaagcacc caagacctgg gtgcactaca ttgctgctga ggaggaggac	1800
tgggactatg cccccctggt gctggcccct gatgacagga gctacaagag ccagtacctg	1860
aacaatggcc cccagaggat tggcaggaag tacaagaagg tcaggttcat ggcctacact	1920

sequencelisting

gatgaaacct tcaagaccag ggaggccatc cagcatgagt ctggcatcct gggccccctg	1980
ctgtatgggg aggtggggga caccctgctg atcatcttca agaaccaggc cagcaggccc	2040
tacaacatct acccccatgg catcactgat gtgaggcccc tgtacagcag gaggctgccc	2100
aagggggtga agcacctgaa ggacttcccc atcctgcctg gggagatctt caagtacaag	2160
tggactgtga ctgtggagga tggccccacc aagtctgacc ccaggctgcct gaccagatac	2220
tacagcagct ttgtgaacat ggagagggac ctggcctctg gcctgattgg cccctgctg	2280
atctgctaca aggagtctgt ggaccagagg ggcaaccaga tcatgtctga caagaggaat	2340
gtgatcctgt tctctgtgtt tgatgagaac aggagctggt acctgactga gaacatccag	2400
aggttcctgc ccaaccctgc tggggtgcag ctggaggacc ctgagttcca ggccagcaac	2460
atcatgcaca gcatcaatgg ctatgtgttt gacagcctgc agctgtctgt gtgcctgcat	2520
gaggtggcct actggtacat cctgagcatt ggggcccaga ctgacttcct gtctgtgttc	2580
ttctctggct acaccttcaa gcacaagatg gtgtatgagg acaccctgac cctgttcccc	2640
ttctctgggg agactgtgtt catgagcatg gagaaccctg gcctgtggat tctgggctgc	2700
cacaactctg acttcaggaa caggggcatg actgccctgc tgaaagtctc cagctgtgac	2760
aagaacactg gggactacta tgaggacagc tatgaggaca tctctgccta cctgctgagc	2820
aagaacaatg ccattgagcc caggagcttc agccagaacc cccagtgct gaagaggcac	2880
cagagggaga tcaccaggac caccctgcag tctgaccagg aggagattga ctatgatgac	2940
accatctctg tggagatgaa gaaggaggac tttgacatct acgacgagga cgagaaccag	3000
agccccagga gcttcagaa gaagaccagg cactacttca ttgctgctgt ggagaggctg	3060
tgggactatg gcatgagcag cagcccccat gtgctgagga acagggccca gtctggctct	3120
gtgccccagt tcaagaaggt ggtgttccag gagttcactg atggcagctt caccagccc	3180
ctgtacagag gggagctgaa tgagcacctg ggcctgctgg gccctacat cagggtgag	3240
gtggaggaca acatcatggt gaccttcagg aaccaggcca gcaggcccta cagcttctac	3300
agcagcctga tcagctatga ggaggaccag aggcaggggg ctgagcccag gaagaacttt	3360
gtgaagcca atgaaaccaa gacctcttc tggaaggtgc agcaccacat ggccccacc	3420
aaggatgagt ttgactgcaa ggcctgggcc tacttctctg atgtggacct ggagaaggat	3480

sequencelisting

gtgcactctg gcctgattgg ccccctgctg gtgtgccaca ccaacaccct gaaccctgcc	3540
catggcaggc aggtgactgt gcaggagttt gccctgttct tcaccatctt tgatgaaacc	3600
aagagctggt acttcactga gaacatggag aggaactgca gggccccctg caacatccag	3660
atggaggacc ccaccttcaa ggagaactac aggttccatg ccatcaatgg ctacatcatg	3720
gacaccctgc ctggcctggt gatggcccag gaccagagga tcaggtggta cctgctgagc	3780
atgggcagca atgagaacat ccacagcatc cacttctctg gccatgtgtt cactgtgagg	3840
aagaaggagg agtacaagat ggccctgtac aacctgtacc ctggggtgtt tgagactgtg	3900
gagatgctgc ccagcaaggc tggcatctgg aggggtggagt gcctgattgg ggagcacctg	3960
catgctggca tgagcacctt gttcctggtg tacagcaaca agtgccagac ccccctgggc	4020
atggcctctg gccacatcag ggacttccag atcactgcct ctggccagta tggccagtgg	4080
gcccccaagc tggccaggct gcactactct ggcatcatca atgcctggag caccaaggag	4140
cccttcagct ggatcaaggt ggacctgctg gccccatga tcatccatgg catcaagacc	4200
cagggggcca ggcagaagtt cagcagcctg tacatcagcc agttcatcat catgtacagc	4260
ctggatggca agaagtggca gacctacagg ggcaacagca ctggcacctt gatggtgttc	4320
tttggcaatg tggacagctc tggcatcaag cacaacatct tcaaccccc catcattgcc	4380
agatacatca ggctgcaccc caccactac agcatcagga gcaccctgag gatggagctg	4440
atgggctgtg acctgaacag ctgcagcatg cccctgggca tggagagcaa ggccatctct	4500
gatgcccaga tctactgccag cagctacttc accaacaatgt ttgccacctg gagccccagc	4560
aaggccaggc tgcacctgca gggcaggagc aatgcctgga ggccccaggt caacaacccc	4620
aaggagtggc tgcaggtgga cttccagaag accatgaagg tgactggggt gaccaccag	4680
ggggtgaaga gcctgctgac cagcatgtat gtgaaggagt tcctgatcag cagcagccag	4740
gatggccacc agtggaccct gttcttccag aatggcaagg tgaaggtgtt ccagggaac	4800
caggacagct tcaccctgt ggtgaacagc ctggaccccc ccctgctgac cagatacctg	4860
aggattcacc cccagagctg ggtgcaccag attgccctga ggatggagggt gctgggctgt	4920
gaggcccagg acctgtactg acctcgagga ataaaggaaa tttattttca ttgcaatagt	4980
gtgttggttt tttgtgtcac gtggcggccg caggaacccc tagtgatgga gttggccact	5040

sequencelisting

ccctctctgc gcgctcgctc gctcactgag gccgggagac caaaggtcgc ccgacgccc	5100
ggctttgccc gggcggcctc agtgagcgag cgagcgcgca gagaggaggt ggccaa	5156
<210> 35	
<211> 5178	
<212> DNA	
<213> Adeno-Associated Virus 2	
<400> 35	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggctc cccggcctca gtgagcgagc gagcgcgag agaggagtg	120
gccaactcca tctactagggg ttctgctggc cgacgctgt tttctgactg tttgctgttt	180
gctgcttgca atgtttgccc attttaggga catgtttgct gtttgctgct tgcaatgttt	240
gcccatttta gggacatgtt tgctgtttgc tgcttgcaat gtttgcccat tttagggaca	300
tgcttgctgt ttgctgcttg caatgtttgc ccattttagg gacaacgca aacgtcgact	360
ggacacagga cgctgtggtt tctgagccag ggggcgactc agatcccagc cagtggactt	420
agcccctgtt tgctcctccg ataactgggg tgacctggt taatattcac cagcagcctc	480
ccccgttgcc cctctggatc cactgcttaa atacggacga ggacagggcc ctgtctcctc	540
agcttcaggc accaccactg acctgggaca gtgaatcgcg atcgccacca tgcagattga	600
gctgagcacc tgcttcttcc tgtgcctgct gaggttctgc ttctctgcca ccaggagata	660
ctacctgggg gctgtggagc tgagctggga ctacatgcag tctgacctgg gggagctgcc	720
tgtggatgcc aggttcccc ccagagtgcc caagagcttc cccttcaaca cctctgtggt	780
gtacaagaag accctgtttg tggagttcac tgaccacctg ttcaacattg ccaagcccag	840
gccccctgg atgggcctgc tgggccccac catccaggct gaggtgtatg aactgtggt	900
gatcacctg aagaacatgg ccagccaccc tgtgagcctg catgctgtgg gggtagctta	960
ctggaaggcc tctgaggggg ctgagtatga tgaccagacc agccagaggg agaaggagga	1020
tgacaaggtg ttccctgggg gcagccacac ctatgtgtgg caggtgctga aggagaatgg	1080
ccccatggcc tctgacccc tgtgcctgac ctacagctac ctgagccatg tggacctggt	1140
gaaggacctg aactctggcc tgattggggc cctgctggtg tgcagggagg gcagcctggc	1200

sequencelisting

caaggagaag acccagaccc tgcacaagtt catcctgctg tttgctgtgt ttgatgaggg	1260
caagagctgg cactctgaaa ccaagaacag cctgatgcag gacagggatg ctgcctctgc	1320
cagggcctgg cccaagatgc acactgtgaa tggctatgtg aacaggagcc tgcctggcct	1380
gattggctgc cacaggaagt ctgtgtactg gcatgtgatt ggcatgggca ccaccctga	1440
ggtgcacagc atcttcctgg agggccacac cttcctggtc aggaaccaca ggcaggccag	1500
cctggagatc agcccatca cttcctgac tgcccagacc ctgctgatgg acctgggcca	1560
gttcctgctg ttctgccaca tcagcagcca ccagcatgat ggcatggagg cctatgtgaa	1620
ggtggacagc tgccctgagg agccccagct gaggatgaag aacaatgagg aggctgagga	1680
ctatgatgat gacctgactg actctgagat ggatgtgggtg aggtttgatg atgacaacag	1740
ccccagcttc atccagatca ggtctgtggc caagaagcac cccaagacct ggggtgacta	1800
cattgctgct gaggaggagg actgggacta tgccccctg gtgctggccc ctgatgacag	1860
gagctacaag agccagtacc tgaacaatgg cccccagagg attggcagga agtacaagaa	1920
ggtcaggttc atggcctaca ctgatgaaac cttcaagacc agggaggcca tccagcatga	1980
gtctggcatc ctgggcccc tgctgtatgg ggaggtgggg gacaccctgc tgatcatctt	2040
caagaaccag gccagcaggc cctacaacat ctacccccat ggcatcactg atgtgaggcc	2100
cctgtacagc aggaggctgc ccaaggggggt gaagcacctg aaggacttcc ccctcctgcc	2160
tggggagatc ttcaagtaca agtggactgt gactgtggag gatggcccca ccaagtctga	2220
ccccaggctg ctgaccagat actacagcag ctttgtgaac atggagaggg acctggcctc	2280
tggcctgatt ggccccctgc tgatctgcta caaggagtct gtggaccaga ggggcaacca	2340
gatcatgtct gacaagagga atgtgatacct gttctctgtg tttgatgaga acaggagctg	2400
gtacctgact gagaacatcc agaggttcct gccaaccct gctgggggtgc agctggagga	2460
ccctgagttc caggccagca acatcatgca cagcatcaat ggctatgtgt ttgacagcct	2520
gcagctgtct gtgtgcctgc atgaggtggc ctactggtac atcctgagca ttggggccca	2580
gactgacttc ctgtctgtgt tcttctctgg ctacaccttc aagcacaaga tgggtgtatga	2640
ggacaccctg accctgttcc ctttctctgg ggagactgtg ttcattgagca tggagaaccc	2700
tggcctgtgg attctgggct gccacaactc tgacttcagg aacaggggca tgactgcctt	2760

sequencelisting

gctgaaagtc tccagctgtg acaagaacac tggggactac tatgaggaca gctatgagga	2820
catctctgcc tacctgctga gcaagaacaa tgccattgag cccaggagct tcagccagaa	2880
ccccccagtg ctgaagaggc accagagggga gatcaccagg accaccctgc agtctgacca	2940
ggaggagatt gactatgatg acaccatctc tgtggagatg aagaaggagg actttgacat	3000
ctacgacgag gacgagaacc agagccccag gagcttccag aagaagacca ggcactactt	3060
cattgctgct gtggagaggc tgtgggacta tggcatgagc agcagcccc atgtgctgag	3120
gaacagggcc cagtctggct ctgtgcccc gttcaagaag gtggtgttcc aggagtccac	3180
tgatggcagc ttcaccagc ccctgtacag aggggagctg aatgagcacc tgggcctgct	3240
gggcccctac atcagggtg aggtggagga caacatcatg gtgaccttca ggaaccaggc	3300
cagcaggccc tacagcttct acagcagcct gatcagctat gaggaggacc agaggcagg	3360
ggctgagccc aggaagaact ttgtgaagcc caatgaaacc aagacctact tctggaaggt	3420
gcagcaccac atggccccca ccaaggatga gtttgactgc aaggcctggg cctacttctc	3480
tgatgtggac ctggagaagg atgtgcactc tggcctgatt ggccccctgc tgggtgtgcca	3540
caccaacacc ctgaaccctg cccatggcag gcaggtgact gtgcaggagt ttgccctgtt	3600
cttcaccatc tttgatgaaa ccaagagctg gtacttctact gagaacatgg agaggaactg	3660
caggggcccc tgcaacatcc agatggagga cccaccttc aaggagaact acaggttcca	3720
tgccatcaat ggctacatca tggacaccct gcctggcctg gtgatggccc aggaccagag	3780
gatcagggtg tacctgctga gcatgggcag caatgagaac atccacagca tccacttctc	3840
tggccatgtg ttcactgtga ggaagaagga ggagtacaag atggccctgt acaacctgta	3900
ccctgggggtg tttgagactg tggagatgct gccagcaag gctggcatct ggagggtgga	3960
gtgcctgatt ggggagcacc tgcatgctgg catgagcacc ctgttcctgg tgtacagcaa	4020
caagtgccag acccccctgg gcatggcctc tggccacatc agggacttcc agatcactgc	4080
ctctggccag tatggccagt gggcccccaa gctggccagg ctgcactact ctggcagcat	4140
caatgcctgg agcaccaagg agcccttcag ctggatcaag gtggacctgc tggcccccat	4200
gatcatccat ggcatcaaga cccagggggc caggcagaag ttcagcagcc tgtacatcag	4260
ccagttcatc atcatgtaca gcctggatgg caagaagtgg cagacctaca ggggcaacag	4320

sequencelisting

cactggcacc ctgatggtgt tcttttgcaa tgtggacagc tctggcatca agcacaacat	4380
cttcaacccc cccatcattg ccagatacat caggctgcac cccaccact acagcatcag	4440
gagcacctg aggatggagc tgatgggctg tgacctgaac agctgcagca tgcccctggg	4500
catggagagc aaggccatct ctgatgcca gatcactgcc agcagctact tcaccaacat	4560
gtttgccacc tggagcccca gcaaggccag gctgcacctg cagggcagga gcaatgcctg	4620
gaggccccag gtcaacaacc ccaaggagtg gctgcaggtg gacttccaga agaccatgaa	4680
ggtgactggg gtgaccacc agggggtgaa gagcctgctg accagcatgt atgtgaagga	4740
gttcctgatc agcagcagcc aggatggcca ccagtggacc ctgttcttcc agaatggcaa	4800
ggtgaaggtg ttccagggca accaggacag cttcaccct gtggtgaaca gcctggaccc	4860
ccccctgctg accagatacc tgaggattca ccccagagc tgggtgcacc agattgcctt	4920
gaggatggag gtgctgggct gtgaggccca ggacctgtac tgacctcgag gaataaagga	4980
aatttatattt cattgcaata gtgtgttggt tttttgtgtc acgtggcggc cgcaggaacc	5040
cctagtgatg gagttggcca ctccctctct gcgcgctcgc tcgctcactg aggccgggcg	5100
accaaaggct gcccgacgcc cgggctttgc ccgggcggcc tcagtgagcg agcgagcgcg	5160
cagagaggga gtggccaa	5178

<210> 36

<211> 5160

<212> DNA

<213> Adeno-Associated Virus 2

<400> 36

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtt gtcctaataa tgggcaaaca	180
ttgcaagcag caaacagcaa acatgtccct aaaatgggca aacattgcaa gcagcaaaca	240
gcaaacatgt ccctaaaatg ggcaaacatt gcaagcagca aacagcaaac atgtccctaa	300
aatgggcaaa cattgcaagc agcaaacagc aaacagtcga ctggacacag gacgctgtgg	360
tttctgagcc agggggcgac tcagatcca gccagtggac ttagcccctg tttgctcctc	420
cgataactgg ggtgaccttg gttaatatcc accagcagcc tccccgttg cccctctgga	480

sequencelisting

tccactgctt aaatacggac gaggacaggg ccctgtctcc tcagcttcag gcaccaccac	540
tgacctggga cagtgaatcg cgatcgccac catgcagatt gagctgagca cctgcttctt	600
cctgtgcctg ctgaggttct gcttctctgc caccaggaga tactacctgg gggctgtgga	660
gctgagctgg gactacatgc agtctgacct gggggagctg cctgtggatg ccaggttccc	720
ccccagagtg cccaagagct tccccttcaa cacctctgtg gtgtacaaga agaccctgtt	780
tgtggagttc actgaccacc tgttcaacat tgccaagccc aggccccct ggatgggcct	840
gctgggcccc accatccagg ctgagggtga tgacactgtg gtgatcacc tgaagaacat	900
ggccagccac cctgtgagcc tgcattgctgt gggggtagac tactggaagg cctctgaggg	960
ggctgagtat gatgaccaga ccagccagag ggagaaggag gatgacaagg tgttccttg	1020
gggcagccac acctatgtgt ggcagggtgct gaaggagaat ggccccatgg cctctgaccc	1080
cctgtgcctg acctacagct acctgagcca tgtggacctg gtgaaggacc tgaactctgg	1140
cctgattggg gccctgctgg tgtgcaggga gggcagcctg gccaaggaga agaccagac	1200
cctgcacaag ttcatcctgc tgtttgctgt gtttgatgag ggcaagagct ggcactctga	1260
aaccaagaac agcctgatgc aggacaggga tgctgcctct gccagggcct ggcccaagat	1320
gcacactgtg aatggctatg tgaacaggag cctgcctggc ctgattggct gccacaggaa	1380
gtctgtgtac tggcatgtga ttggcatggg caccaccct gaggtgcaca gcatcttct	1440
ggagggccac accttcttg tcaggaacca caggcaggcc agcctggaga tcagccccat	1500
caccttctg actgcccaga ccctgctgat ggacctgggc cagttcctgc tgttctgcca	1560
catcagcagc caccagcatg atggcatgga ggcctatgtg aaggtggaca gctgccctga	1620
ggagccccag ctgaggatga agaacaatga ggaggctgag gactatgatg atgacctgac	1680
tgactctgag atggatgtgg tgaggtttga tgatgacaac agccccagct tcatccagat	1740
caggctctgtg gccaagaagc accccaagac ctgggtgcac tacattgctg ctgaggagga	1800
ggactgggac tatgcccccc tgggtgctggc ccctgatgac aggagctaca agagccagta	1860
cctgaacaat ggccccaga ggattggcag gaagtacaag aaggtcaggt tcatggccta	1920
cactgatgaa accttcaaga ccaggagggc catccagcat gagtctggca tcctgggccc	1980
cctgctgtat ggggaggtgg gggacaccct gctgatcatc ttcaagaacc aggccagcag	2040

sequencelisting

gccctacaac atctaccccc atggcatcac tgatgtgagg cccctgtaca gcaggaggct	2100
gccaaggagg gtgaagcacc tgaaggactt ccccatcctg cctggggaga tcttcaagta	2160
caagtggact gtgactgtgg aggatggccc caccaagtct gaccccaggt gcctgaccag	2220
atactacagc agctttgtga acatggagag ggacctggcc tctggcctga ttggccccct	2280
gctgatctgc tacaaggagt ctgtggacca gaggggcaac cagatcatgt ctgacaagag	2340
gaatgtgatc ctgttctctg tgtttgatga gaacaggagc tggtacctga ctgagaacat	2400
ccagaggttc ctgccaacc ctgctggggg gcagctggag gacctgagt tccaggccag	2460
caacatcatg cacagcatca atggctatgt gtttgacagc ctgcagctgt ctgtgtgcct	2520
gcatgagggt gcctactggt acatcctgag cattggggcc cagactgact tcctgtctgt	2580
gttcttctct ggctacacct tcaagcaca gatggtgtat gaggacacc tgaccctgtt	2640
cccccttctt ggggagactg tgttcatgag catggagaac cctggcctgt ggattctggg	2700
ctgccacaac tctgacttca ggaacagggg catgactgcc ctgctgaaag tctccagctg	2760
tgacaagaac actgggggact actatgagga cagctatgag gacatctctg cctacctgct	2820
gagcaagaac aatgccattg agcccaggag cttcagccag aacccccag tgctgaagag	2880
gcaccagagg gagatcacca ggaccaccct gcagtctgac caggaggaga ttgactatga	2940
tgacaccatc tctgtggaga tgaagaagga ggactttgac atctacgacg aggacgagaa	3000
ccagagcccc aggagcttcc agaagaagac caggcactac ttcatgtctg ctgtggagag	3060
gctgtgggac tatggcatga gcagcagccc ccatgtgctg aggaacaggg cccagtctgg	3120
ctctgtgccc cagttcaaga aggtggtgtt ccaggagttc actgatggca gcttcaccca	3180
gcccctgtac agagggggagc tgaatgagca cctgggcctg ctgggcccct acatcagggc	3240
tgagggtggag gacaacatca tggtgacctt caggaaccag gccagcaggc cctacagctt	3300
ctacagcagc ctgatcagct atgaggagga ccagaggcag ggggctgagc ccaggaagaa	3360
ctttgtgaag cccaatgaaa ccaagacctt cttctggaag gtgcagcacc acatggcccc	3420
caccaaggat gagtttgact gcaaggcctg ggcctacttc tctgatgtgg acctggagaa	3480
ggatgtgcac tctggcctga ttggccccct gctggtgtgc cacaccaaca ccctgaaccc	3540
tgcccatggc aggcaggtga ctgtgcagga gtttgccctg ttcttcacca tctttgatga	3600

sequencelisting

aaccaagagc	tggtacttca	ctgagaacat	ggagaggaac	tgcagggccc	cctgcaacat	3660
ccagatggag	gaccccacct	tcaaggagaa	ctacaggttc	catgccatca	atggctacat	3720
catggacacc	ctgcctggcc	tggtgatggc	ccaggaccag	aggatcaggt	ggtacctgct	3780
gagcatgggc	agcaatgaga	acatccacag	catccacttc	tctggccatg	tgttcactgt	3840
gaggaagaag	gaggagtaca	agatggccct	gtacaacctg	taccctgggg	tgtttgagac	3900
tgtggagatg	ctgcccagca	aggctggcat	ctggagggtg	gagtgccctga	ttggggagca	3960
cctgcatgct	ggcatgagca	ccctgttcct	ggtgtacagc	aacaagtgcc	agacccccct	4020
gggcatggcc	tctggccaca	tcagggactt	ccagatcact	gcctctggcc	agtatggcca	4080
gtgggcccc	aagctggcca	ggctgcacta	ctctggcagc	atcaatgcct	ggagcaccaa	4140
ggagcccttc	agctggatca	aggtggacct	gctggcccc	atgatcatcc	atggcatcaa	4200
gaccagggg	gccaggcaga	agttcagcag	cctgtacatc	agccagttca	tcatcatgta	4260
cagcctggat	ggcaagaagt	ggcagacct	caggggcaac	agcactggca	ccctgatggt	4320
gttctttggc	aatgtggaca	gctctggcat	caagcacaac	atcttcaacc	ccccatcat	4380
tgccagatac	atcaggctgc	acccaccca	ctacagcatc	aggagcacc	tgaggatgga	4440
gctgatgggc	tgtgacctga	acagctgcag	catgcccctg	ggcatggaga	gcaaggccat	4500
ctctgatgcc	cagatcactg	ccagcagcta	cttcaccaac	atgtttgcca	cctggagccc	4560
cagcaaggcc	aggctgcacc	tgcagggcag	gagcaatgcc	tggaggcccc	aggtcaacaa	4620
ccccaaggag	tggtctgcagg	tggacttcca	gaagaccatg	aaggtgactg	gggtgaccac	4680
ccaggggggtg	aagagcctgc	tgaccagcat	gtatgtgaag	gagttcctga	tcagcagcag	4740
ccaggatggc	caccagtgga	ccctgttctt	ccagaatggc	aaggtgaagg	tgttccaggg	4800
caaccaggac	agcttcaccc	ctgtggtgaa	cagcctggac	ccccccctgc	tgaccagata	4860
cctgaggatt	cacccccaga	gctgggtgca	ccagattgcc	ctgaggatgg	aggtgctggg	4920
ctgtgaggcc	caggacctgt	actgacctcg	aggaataaag	gaaatttatt	ttcattgcaa	4980
tagtgtgttg	gttttttgtg	tcacgtggcg	gccgcaggaa	cccctagtga	tggagttggc	5040
cactccctct	ctgcgcgctc	gctcgtcac	tgaggccggg	cgaccaaagg	tcgcccgcacg	5100
cccgggcttt	gcccgggcgg	cctcagtgag	cgagcgagcg	cgagagagg	gagtggccaa	5160

sequencelisting

<210> 37
 <211> 5383
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 37
 ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg 60
 cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg 120
 gccaaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgactg tttgctgttt 180
 gctgcttgca atgtttgccc attttaggga catgtttgct gtttgctgct tgcaatgttt 240
 gcccatttta gggacatgtt tgctgtttgc tgcttgcaat gtttgcccat tttagggaca 300
 tgtttgctgt ttgctgcttg caatgtttgc ccattttagg gacaacgca aacgtcgact 360
 ggacacagga cgctgtgggt tctgagccag ggggcgactc agatcccagc cagtggactt 420
 agcccctgtt tgctcctccg ataactgggg tgaccttggg taatattcac cagcagcctc 480
 ccccgttgcc cctctggatc cactgcttaa atacggacga ggacagggcc ctgtctcctc 540
 agcttcaggc accaccactg acctgggaca gtgaatcgta agtatgcctt tcactgcgag 600
 aggttctgga gaggttctg agctcccat ggcccaggca ggagcaggt ctggggcagg 660
 agggggggtt tggagtgcct tgactcgggg cctggccccc ccattctgtt cttgcaggac 720
 aattgccgtc ttctgtctcg tggggcatcc tcctgctggc aggcctgtgc tgcctggtcc 780
 ctgcgatcgc caccatgcag attgagctga gcacctgctt cttcctgtgc ctgctgaggt 840
 tctgcttctc tgccaccagg agatactacc tgggggctgt ggagctgagc tgggactaca 900
 tgagctctga cctgggggag ctgcctgtgg atgccaggtt ccccccaga gtgccaaga 960
 gttccccctt caacacctct gtggtgtaca agaagacctt gtttgtggag ttcactgacc 1020
 acctgttcaa cattgccaag ccagggcccc cctggatggg cctgctgggc cccaccatcc 1080
 aggctgaggt gtatgacact gtggtgatca ccctgaagaa catggccagc caccctgtga 1140
 gcctgcatgc tgtgggggtg agctactgga aggcctctga gggggctgag tatgatgacc 1200
 agaccagcca gagggagaag gaggatgaca aggtgttccc tgggggcagc cacacctatg 1260
 tgtggcaggt gctgaaggag aatggcccca tggcctctga cccctgtgc ctgacctaca 1320

sequencelisting

gctacctgag ccatgtggac ctggtgaagg acctgaactc tggcctgatt ggggccctgc	1380
tggtgtgcag ggagggcagc ctggccaagg agaagaccca gaccctgcac aagttcatcc	1440
tgctgtttgc tgtgtttgat gagggcaaga gctggcactc tgaaaccaag aacagcctga	1500
tgaggacag ggatgctgcc tctgccaggg cctggcccaa gatgcacact gtgaatggct	1560
atgtgaacag gagcctgcct ggccctgattg gctgccacag gaagtctgtg tactggcatg	1620
tgattggcat gggcaccacc cctgaggtgc acagcatctt cctggagggc cacaccttcc	1680
tggtcaggaa ccacaggcag gccagcctgg agatcagccc catcaccttc ctgactgccc	1740
agaccctgct gatggacctg ggccagttcc tgctgttctg ccacatcagc agccaccagc	1800
atgatggcat ggaggcctat gtgaaggtgg acagctgccc tgaggagccc cagctgagga	1860
tgaagaacaa tgaggaggct gaggactatg atgatgacct gactgactct gagatggatg	1920
tggtgaggtt tgatgatgac aacagcccca gcttcatcca gatcaggtct gtggccaaga	1980
agcaccccaa gacctgggtg cactacattg ctgctgagga ggaggactgg gactatgccc	2040
ccctggtgct ggcccctgat gacaggagct acaagagcca gtacctgaac aatggccccc	2100
agaggattgg caggaagtac aagaaggta ggttcatggc ctacactgat gaaaccttca	2160
agaccaggga ggccatccag catgagtctg gcatcctggg cccctgctg tatggggagg	2220
tgggggacac cctgctgac atcttcaaga accaggccag caggccctac aacatctacc	2280
cccatggcat cactgatgtg aggcccctgt acagcaggag gctgcccag ggggtgaagc	2340
acctgaagga cttcccatc ctgcctgggg agatcttcaa gtacaagtgg actgtgactg	2400
tggaggatgg cccaccaa g tctgaccca ggtgcctgac cagatactac agcagctttg	2460
tgaacatgga gagggacctg gcctctggcc tgattggccc cctgctgac tgctacaagg	2520
agtctgtgga ccagaggggc aaccagatca tgtctgacaa gaggaatgtg atcctgttct	2580
ctgtgtttga tgagaacagg agctggtacc tgactgagaa catccagagg ttctgcccc	2640
accctgctgg ggtgcagctg gaggaccctg agttccaggc cagcaacatc atgcacagca	2700
tcaatggcta tgtgtttgac agcctgcagc tgtctgtgtg cctgcatgag gtggcctact	2760
ggtacatcct gagcattggg gccagactg acttcctgtc tgtgttcttc tctggctaca	2820
ccttcaagca caagatggtg tatgaggaca ccctgaccct gttccccttc tctggggaga	2880

sequencelisting						
ctgtgttcat	gagcatggag	aaccctggcc	tgtggattct	gggctgccac	aactctgact	2940
tcaggaacag	gggcatgact	gccctgctga	aagtctccag	ctgtgacaag	aacactgggg	3000
actactatga	ggacagctat	gaggacatct	ctgcctacct	gctgagcaag	aacaatgcca	3060
ttgagcccag	gagcttcagc	cagaaccccc	cagtgtctgaa	gaggcaccag	agggagatca	3120
ccaggaccac	cctgcagtct	gaccaggagg	agattgacta	tgatgacacc	atctctgttg	3180
agatgaagaa	ggaggacttt	gacatctacg	acgaggacga	gaaccagagc	cccaggagct	3240
tccagaagaa	gaccaggcac	tacttcattg	ctgctgtgga	gaggctgttg	gactatggca	3300
tgagcagcag	cccccatgtg	ctgaggaaca	gggcccagtc	tggctctgtg	cccagttca	3360
agaaggtggt	gttccaggag	ttcactgatg	gcagcttcac	ccagcccctg	tacagagggg	3420
agctgaatga	gcacctgggc	ctgctgggcc	cctacatcag	ggctgaggtg	gaggacaaca	3480
tcatggtgac	cttcaggaac	caggccagca	ggccctacag	cttctacagc	agcctgatca	3540
gctatgagga	ggaccagagg	cagggggctg	agcccaggaa	gaactttgtg	aagcccaatg	3600
aaaccaagac	ctacttctgg	aaggtgcagc	accacatggc	ccccaccaag	gatgagtttg	3660
actgcaaggc	ctgggcctac	ttctctgatg	tggacctgga	gaaggatgtg	cactctggcc	3720
tgattggccc	cctgctgggtg	tgccacacca	acaccctgaa	ccctgcccac	ggcaggcagg	3780
tgactgtgca	ggagtttgcc	ctgttcttca	ccatctttga	tgaaaccaag	agctgggtact	3840
tcactgagaa	catggagagg	aactgcaggg	ccccctgcaa	catccagatg	gaggacccca	3900
ccttcaagga	gaactacagg	ttccatgcca	tcaatggcta	catcatggac	accctgcctg	3960
gcctggtgat	ggcccaggac	cagaggatca	ggtggtacct	gctgagcatg	ggcagcaatg	4020
agaacatcca	cagcatccac	ttctctggcc	atgtgttcac	tgtgaggaag	aaggaggagt	4080
acaagatggc	cctgtacaac	ctgtaccctg	gggtgtttga	gactgtggag	atgctgcca	4140
gcaaggctgg	catctggagg	gtggagtgcc	tgattgggga	gcacctgcat	gctggcatga	4200
gcaccctgtt	cctggtgtac	agcaacaagt	gccagacccc	cctgggcatg	gcctctggcc	4260
acatcaggga	cttcagatc	actgcctctg	gccagtatgg	ccagtgggcc	ccaagctgg	4320
ccaggctgca	ctactctggc	agcatcaatg	cctggagcac	caaggagccc	ttcagctgga	4380
tcaaggtgga	cctgctggcc	cccatgatca	tccatggcat	caagaccag	ggggccaggc	4440

sequencelisting

agaagttcag cagcctgtac atcagccagt tcatcatcat gtacagcctg gatggcaaga	4500
agtggcagac ctacaggggc aacagcactg gcaccctgat ggtgttcttt ggcaatgtgg	4560
acagctctgg catcaagcac aacatcttca acccccccat cattgccaga tacatcaggc	4620
tgcacccac ccactacagc atcaggagca ccctgaggat ggagctgatg ggctgtgacc	4680
tgaacagctg cagcatgccc ctgggcatgg agagcaaggc catctctgat gccagatca	4740
ctgccagcag ctacttcacc aacatgtttg ccacctggag cccagcaag gccaggctgc	4800
acctgcaggg caggagcaat gcctggaggc cccaggtcaa caacccaag gagggtgctgc	4860
aggtggactt ccagaagacc atgaaggtga ctggggtgac caccagggg gtgaagagcc	4920
tgctgaccag catgtatgtg aaggagttcc tgatcagcag cagccaggat ggccaccagt	4980
ggaccctgtt cttccagaat ggcaaggtga aggtgttcca gggcaaccag gacagcttca	5040
cccctgtggt gaacagcctg gacccccccc tgctgaccag atacctgagg attcaccccc	5100
agagctgggt gcaccagatt gccctgagga tggaggtgct gggctgtgag gcccaggacc	5160
tgtactgacc tcgaggaata aaggaaattt attttcattg caatagtgtg ttggtttttt	5220
gtgtcacgtg gcggccgcag gaacccttag tgatggagtt ggccactccc tctctgcgcg	5280
ctcgctcgct cactgaggcc gggcgaccaa aggtcgcccg acgcccgggc tttgccggg	5340
cggcctcagt gagcgagcga gcgcgcagag agggagtggc caa	5383

<210> 38

<211> 5728

<212> DNA

<213> Adeno-Associated Virus 2

<400> 38

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgctgggcga ctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgactg tttgctgttt	180
gctgcttgca atgtttgcc attttaggga catgtttgct gtttgctgct tgcaatgttt	240
gcccatttta gggacatgtt tgctgtttgc tgcttgcaat gtttgcccat tttagggaca	300
tgtttgctgt ttgctgcttg caatgtttgc ccattttagg gacaacgcga aacgtcgaca	360
ggttaatttt taaaaagcag tcaaaagtcc aagtggccct tggcagcatt tactctctct	420

sequencelisting

gtttgctctg gttaataatc tcaggagcac aaacattcct ggaggcagga gaagaaatca	480
acatcctgga cttatcctct gggcctctcc ccacccccag gagaggctca ggttaatctt	540
taaaaagcag tcaaaagtcc aagtggccct tggcagcatt tactctctct gtttgctctg	600
gttaataatc tcaggagcac aaacattcct ggaggcagga gaagaaatca acatcctgga	660
cttatcctct gggcctctcc ccacccccag gagaggctgt cgactggaca caggacgctg	720
tggtttctga gccagggggc gactcagatc ccagccagtg gacttagccc ctgtttgctc	780
ctccgataac tggggtgacc ttgggtaata ttcaccagca gcctccccg ttgcccctct	840
ggatccactg cttaaatacg gacgaggaca gggccctgtc tcctcagctt caggcaccac	900
cactgacctg ggacagtga tctgaagtat gcctttcact gcgagagggt ctggagaggc	960
ttctgagctc cccatggccc aggcaggcag caggctctggg gcaggagggg ggttgtggag	1020
tgcttgact cggggcctgg ccccccatc tctgtcttgc aggacaattg ccgtcttctg	1080
tctctgtggg catcctcctg ctggcaggcc tgtgtctgcct ggtccctgcg atcgccacca	1140
tgcagattga gctgagcacc tgcttcttcc tgtgcctgct gaggttctgc ttctctgcca	1200
ccaggagata ctacctgggg gctgtggagc tgagctggga ctacatgcag tctgacctgg	1260
gggagctgcc tgtggatgcc aggttcccc ccagagtgcc caagagcttc ccttcaaca	1320
cctctgtggt gtacaagaag accctgtttg tggagttcac tgaccacctg ttcaacattg	1380
ccaagcccag gccccctgg atgggcctgc tgggccccac catccaggct gaggtgtatg	1440
acactgtggt gatcacctg aagaacatgg ccagccaccc tgtgagcctg catgctgtgg	1500
gggtgagcta ctggaaggcc tctgaggggg ctgagtatga tgaccagacc agccagaggg	1560
agaaggagga tgacaagggt ttccctgggg gcagccacac ctatgtgtgg cagggtctga	1620
aggagaatgg ccccatggcc tctgaccccc tgtgcctgac ctacagctac ctgagccatg	1680
tggacctggt gaaggacctg aactctggcc tgattggggc cctgctggtg tgcagggagg	1740
gcagcctggc caaggagaag acccagaccc tgcacaagtt catcctgctg tttgctgtgt	1800
ttgatgaggg caagagctgg cactctgaaa ccaagaacag cctgatgcag gacagggatg	1860
ctgcctctgc cagggcctgg cccaagatgc aactgtgaa tggctatgtg aacaggagcc	1920
tgcttgccct gattggctgc cacaggaagt ctgtgtactg gcatgtgatt ggcatgggca	1980

sequencelisting

ccacccctga ggtgcacagc atcttcctgg agggccacac cttcctggtc aggaaccaca	2040
ggcaggccag cctggagatc agcccatca cttcctgac tgcccagacc ctgctgatgg	2100
acctgggcca gttcctgctg ttctgccaca tcagcagcca ccagcatgat ggcatggagg	2160
cctatgtgaa ggtggacagc tgccctgagg agccccagct gaggatgaag aacaatgagg	2220
aggctgagga ctatgatgat gacctgactg actctgagat ggatgtgggtg aggtttgatg	2280
atgacaacag cccagcttc atccagatca ggtctgtggc caagaagcac cccaagacct	2340
gggtgcacta cattgctgct gaggaggagg actgggacta tgccccctg gtgctggccc	2400
ctgatgacag gagctacaag agccagtacc tgaacaatgg ccccagagg attggcagga	2460
agtacaagaa ggtcaggttc atggcctaca ctgatgaaac cttcaagacc agggaggcca	2520
tccagcatga gtctggcatc ctgggcccc tgctgtatgg ggaggtgggg gacaccctgc	2580
tgatcatctt caagaaccag gccagcaggc cttacaacat ctacccccat ggcatcactg	2640
atgtgaggcc cctgtacagc aggaggctgc ccaagggggt gaagcacctg aaggacttcc	2700
ccatcctgcc tggggagatc ttcaagtaca agtggactgt gactgtggag gatggcccca	2760
ccaagtctga cccaggtgc ctgaccagat actacagcag ctttgtgaac atggagaggg	2820
acctggcctc tggcctgatt ggccccctgc tgatctgcta caaggagtct gtggaccaga	2880
ggggcaacca gatcatgtct gacaagagga atgtgacatc gttctctgtg tttgatgaga	2940
acaggagctg gtacctgact gagaacatcc agaggttcct gcccaaccct gctgggggtgc	3000
agctggagga ccctgagttc caggccagca acatcatgca cagcatcaat ggctatgtgt	3060
ttgacagcct gcagctgtct gtgtgcctgc atgagggtggc ctactggtac atcctgagca	3120
ttggggccca gactgacttc ctgtctgtgt tcttctctgg ctacaccttc aagcacaaga	3180
tggtgtatga ggacaccctg accctgttcc ctttctctgg ggagactgtg ttcattgagca	3240
tggagaaccc tggcctgtgg attctgggct gccacaactc tgacttcagg aacaggggca	3300
tgactgccct gctgaaagtc tccagctgtg acaagaacac tggggactac tatgaggaca	3360
gctatgagga catctctgcc tacctgctga gcaagaacaa tgccattgag cccaggagct	3420
tcagccagaa cccccagtg ctgaagaggc accagaggga gatcaccagg accaccctgc	3480
agtctgacca ggaggagatt gactatgatg acaccatctc tgtggagatg aagaaggagg	3540

sequencelisting

actttgacat ctacgacgag gacgagaacc agagccccag gagcttccag aagaagacca	3600
ggcactactt cattgctgct gtggagaggc tgtgggacta tggcatgagc agcagcccc	3660
atgtgctgag gaacagggcc cagtctggct ctgtgcccc a gttcaagaag gtggtgttcc	3720
aggagttcac tgatggcagc ttcacccagc ccctgtacag aggggagctg aatgagcacc	3780
tgggcctgct gggcccctac atcagggctg aggtggagga caacatcatg gtgaccttca	3840
ggaaccaggc cagcaggccc tacagcttct acagcagcct gatcagctat gaggaggacc	3900
agaggcaggg ggctgagccc aggaagaact ttgtgaagcc caatgaaacc aagacctact	3960
tctggaaggt gcagcaccac atggccccca ccaaggatga gtttgactgc aaggcctggg	4020
cctacttctc tgatgtggac ctggagaagg atgtgcactc tggcctgatt ggccccctgc	4080
tgggtgtgcca caccaacacc ctgaaccctg cccatggcag gcaggtgact gtgcaggagt	4140
ttgccctgtt cttcaccatc tttgatgaaa ccaagagctg gtacttcact gagaacatgg	4200
agaggaactg cagggccccc tgcaacatcc agatggagga cccaccttc aaggagaact	4260
acaggttcca tgccatcaat ggctacatca tggacaccct gcctggcctg gtgatggccc	4320
aggaccagag gatcaggtgg tacctgctga gcatgggcag caatgagaac atccacagca	4380
tccacttctc tggccatgtg ttcactgtga ggaagaagga ggagtacaag atggccctgt	4440
acaacctgta ccctgggggtg tttgagactg tggagatgct gccagcaag gctggcatct	4500
ggaggggtgga gtgcctgatt ggggagcacc tgcatgctgg catgagcacc ctgttcctgg	4560
tgtacagcaa caagtgccag acccccctgg gcatggcctc tggccacatc agggacttcc	4620
agatcactgc ctctggccag tatggccagt gggcccccaa gctggccagg ctgcactact	4680
ctggcagcat caatgcctgg agcaccaagg agcccttcag ctggatcaag gtggacctgc	4740
tggcccccat gatcatccat ggcatcaaga ccaggggggc caggcagaag ttcagcagcc	4800
tgtacatcag ccagttcatc atcatgtaca gcctggatgg caagaagtgg cagacctaca	4860
ggggcaacag cactggcacc ctgatggtgt tctttggcaa tgtggacagc tctggcatca	4920
agcacaacat cttcaacccc cccatcattg ccagatacat caggctgcac cccaccact	4980
acagcatcag gagcaccctg aggatggagc tgatgggctg tgacctgaac agctgcagca	5040
tgcccctggg catggagagc aaggccatct ctgatgcca gatcactgcc agcagctact	5100

sequencelisting

tcaccaacat gtttgccacc tggagcccca gcaaggccag gctgcacctg cagggcagga	5160
gcaatgcctg gaggcccccag gtcaacaacc ccaaggagtg gctgcaggtg gacttccaga	5220
agaccatgaa ggtgactggg gtgaccaccc aggggggtgaa gagcctgctg accagcatgt	5280
atgtgaagga gttcctgatc agcagcagcc aggatggcca ccagtggacc ctgttcttcc	5340
agaatggcaa ggtgaagggtg ttccagggca accaggacag cttcacccct gtggtgaaca	5400
gcctggaccc cccctgctg accagatacc tgaggattca ccccgagagc tgggtgcacc	5460
agattgccct gaggatggag gtgctgggct gtgaggccca ggacctgtac tgacctcgag	5520
gaataaagga aatttatattt cattgcaata gtgtgttgggt tttttgtgtc acgtggcggc	5580
cgcaggaacc cctagtgatg gagttggcca ctccctctct gcgcgctcgc tcgctcactg	5640
aggccgggcg accaaaggct gcccgacgcc cgggctttgc ccgggcggcc tcagtgagcg	5700
agcgagcgcg cagagaggga gtggccaa	5728

<210> 39

<211> 5905

<212> DNA

<213> Adeno-Associated Virus 2

<400> 39

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cttttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgactg tttgctgttt	180
gctgcttgca atgtttgccc attttaggga catgtttgct gtttgctgct tgcaatgttt	240
gcccatttta gggacatgtt tgctgtttgc tgcttgcaat gtttgcccat tttagggaca	300
tgtttgctgt ttgctgcttg caatgtttgc ccattttagg gacaacgcga aacgtcgaca	360
ggttaatttt taaaaagcag tcaaaagtcc aagtggccct tggcagcatt tactctctct	420
gtttgctctg gttaataatc tcaggagcac aaacattcct ggaggcagga gaagaaatca	480
acatcctgga cttatcctct gggcctctcc ccacccccag gagaggctca ggttaatttt	540
taaaaagcag tcaaaagtcc aagtggccct tggcagcatt tactctctct gtttgctctg	600
gttaataatc tcaggagcac aaacattcct ggaggcagga gaagaaatca acatcctgga	660

sequencelisting

cttatcctct	gggcctctcc	ccacccccag	gagaggctgt	cgactggaca	caggacgctg	720
tggtttctga	gccagggggc	gactcagatc	ccagccagtg	gacttagccc	ctgtttgctc	780
ctccgataac	tggggtgacc	ttggttaata	ttcaccagca	gcctcccccg	ttgccctct	840
ggatccactg	cttaaatacg	gacgaggaca	gggccctgtc	tcctcagctt	caggcaccac	900
cactgacctg	ggacagtga	tcgtaagtat	gcctttcact	gcgagagggt	ctggagaggc	960
ttctgagctc	cccatggccc	aggcaggcag	caggtctggg	gcaggagggg	ggttgtggag	1020
tgcttgact	cggggcctgg	ccccccatc	tctgtcttgc	aggacaattg	ccgtcttctg	1080
tctcgtgggg	catcctcctg	ctggcaggcc	tgtgctgcct	ggtccttgcg	atgccacca	1140
tgagattga	gctgagcacc	tgcttcttcc	tgtgcctgct	gaggttctgc	ttctctgcca	1200
ccaggagata	ctacctgggg	gctgtggagc	tgagctggga	ctacatgcag	tctgacctgg	1260
gggagctgcc	tgtggatgcc	aggttcccc	ccagagtgcc	caagagcttc	cccttcaaca	1320
cctctgtggt	gtacaagaag	accctgtttg	tggagttcac	tgaccacctg	ttcaacattg	1380
ccaagcccag	gccccctgg	atgggcctgc	tgggccccac	catccaggct	gaggtgtatg	1440
acactgtggt	gatcacctg	aagaacatgg	ccagccaccc	tgtgagcctg	catgctgtgg	1500
gggtgagcta	ctggaaggcc	tctgaggggg	ctgagtatga	tgaccagacc	agccagaggg	1560
agaaggagga	tgacaagggt	ttccctgggg	gcagccacac	ctatgtgtgg	caggtgctga	1620
aggagaatgg	ccccatggcc	tctgaccccc	tgtgcctgac	ctacagctac	ctgagccatg	1680
tggacctggt	gaaggacctg	aactctggcc	tgattggggc	cctgctggtg	tgacgggagg	1740
gcagcctggc	caaggagaag	acccagaccc	tgacacaagt	catcctgctg	tttgctgtgt	1800
ttgatgaggg	caagagctgg	cactctgaaa	ccaagaacag	cctgatgcag	gacagggatg	1860
ctgcctctgc	cagggcctgg	ccaagatgc	acactgtgaa	tggctatgtg	aacaggagcc	1920
tgcttgccct	gattggctgc	cacaggaagt	ctgtgtactg	gcatgtgatt	ggcatgggca	1980
ccacccctga	ggtgcacagc	atcttcctgg	agggccacac	cttcctggtc	aggaaccaca	2040
ggcaggccag	cctggagatc	agcccatca	ccttcctgac	tgcccagacc	ctgctgatgg	2100
acctgggcca	gttcctgctg	ttctgccaca	tcagcagcca	ccagcatgat	ggcatggagg	2160
cctatgtgaa	ggtggacagc	tgccctgagg	agccccagct	gaggatgaag	aacaatgagg	2220

sequencelisting

aggctgagga ctatgatgat gacctgactg actctgagat ggatgtggtg aggtttgatg	2280
atgacaacag ccccagcttc atccagatca ggtctgtggc caagaagcac cccaagacct	2340
gggtgcacta cattgctgct gaggaggagg actgggacta tgccccctg gtgctggccc	2400
ctgatgacag gagctacaag agccagtacc tgaacaatgg ccccagagg attggcagga	2460
agtacaagaa ggtcaggttc atggcctaca ctgatgaaac cttcaagacc agggaggcca	2520
tccagcatga gtctggcatc ctgggcccc tgctgtatgg ggaggtgggg gacaccctgc	2580
tgatcatctt caagaaccag gccagcaggc cctacaacat ctacccccat ggcatcactg	2640
atgtgaggcc cctgtacagc aggaggctgc ccaagggggt gaagcacctg aaggacttcc	2700
ccatcctgcc tggggagatc ttcaagtaca agtggactgt gactgtggag gatggcccca	2760
ccaagtctga ccccaggctg ctgaccagat actacagcag ctttgtgaac atggagaggg	2820
acctggcctc tggcctgatt ggccccctgc tgatctgcta caaggagtct gtggaccaga	2880
ggggcaacca gatcatgtct gacaagagga atgtgacctt gttctctgtg tttgatgaga	2940
acaggagctg gtacctgact gagaacatcc agaggttcct gcccaaccct gctggggctgc	3000
agctggagga ccctgagttc caggccagca acatcatgca cagcatcaat ggctatgtgt	3060
ttgacagcct gcagctgtct gtgtgcctgc atgaggtggc ctactggtac atcctgagca	3120
ttggggccca gactgacttc ctgtctgtgt tcttctctgg ctacaccttc aagcacaaga	3180
tgggtgtatga ggacaccctg accctgttcc ctttctctgg ggagactgtg ttcattgagca	3240
tggagaacct tggcctgtgg attctgggct gccacaactc tgacttcagg aacaggggca	3300
tgactgccct gctgaaagtc tccagctgtg acaagaacac tggggactac tatgaggaca	3360
gctatgagga catctctgcc tacctgctga gcaagaacaa tgccattgag cccaggagct	3420
tcagccagaa cccccagtgc ctgaagaggc accagaggga gatcaccagg accaccctgc	3480
agtctgacca ggaggagatt gactatgatg acaccatctc tgtggagatg aagaaggagg	3540
actttgacat ctacgacgag gacgagaacc agagccccag gagcttccag aagaagacca	3600
ggcactactt cattgctgct gtggagaggc tgtgggacta tggcatgagc agcagcccc	3660
atgtgctgag gaacagggcc cagtctggct ctgtgcccc gttcaagaag gtggtgttcc	3720
aggagttcac tgatggcagc ttcaccagc ccctgtacag aggggagctg aatgagcacc	3780

sequencelisting

tgggcctgct	gggcccctac	atcagggctg	aggtggagga	caacatcatg	gtgaccttca	3840
ggaaccaggc	cagcaggccc	tacagcttct	acagcagcct	gatcagctat	gaggaggacc	3900
agaggcaggg	ggctgagccc	aggaagaact	ttgtgaagcc	caatgaaacc	aagacctact	3960
tctggaaggt	gcagcaccac	atggccccc	ccaaggatga	gtttgactgc	aaggcctggg	4020
cctactttct	tgatgtggac	ctggagaagg	atgtgcactc	tggcctgatt	ggccccctgc	4080
tggtgtgcca	caccaacacc	ctgaaccctg	cccatggcag	gcaggtgact	gtgcaggagt	4140
ttgccctgtt	cttcaccatc	tttgatgaaa	ccaagagctg	gtacttcact	gagaacatgg	4200
agaggaactg	cagggccccc	tgcaacatcc	agatggagga	ccccaccttc	aaggagaact	4260
acaggttcca	tgccatcaat	ggctacatca	tggacaccct	gcctggcctg	gtgatggccc	4320
aggaccagag	gatcaggtgg	tacctgctga	gcatgggcag	caatgagaac	atccacagca	4380
tccactttct	tggccatgtg	ttcactgtga	ggaagaagga	ggagtacaag	atggccctgt	4440
acaacctgta	ccctgggggtg	tttgagactg	tggagatgct	gccagcaag	gctggcatct	4500
ggagggtgga	gtgcctgatt	ggggagcacc	tgcatgctgg	catgagcacc	ctgttcctgg	4560
tgtacagcaa	caagtgccag	acccccctgg	gcatggcctc	tggccacatc	agggacttcc	4620
agatcactgc	ctctggccag	tatggccagt	gggcccccaa	gctggccagg	ctgcactact	4680
ctggcagcat	caatgcctgg	agcaccaagg	agcccttcag	ctggatcaag	gtggacctgc	4740
tggcccccat	gatcatccat	ggcatcaaga	cccagggggc	caggcagaag	ttcagcagcc	4800
tgtacatcag	ccagttcatc	atcatgtaca	gcctggatgg	caagaagtgg	cagacctaca	4860
ggggcaacag	cactggcacc	ctgatggtgt	tctttggcaa	tgtggacagc	tctggcatca	4920
agcacaacat	cttcaacccc	cccatcattg	ccagatacat	caggctgcac	cccacccact	4980
acagcatcag	gagcaccctg	aggatggagc	tgatgggctg	tgacctgaac	agctgcagca	5040
tgcccctggg	catggagagc	aaggccatct	ctgatgccc	gatcactgcc	agcagctact	5100
tcaccaacat	gtttgccacc	tggagcccca	gcaaggccag	gctgcacctg	cagggcagga	5160
gcaatgcctg	gaggccccag	gtcaacaacc	ccaaggagtg	gctgcaggtg	gacttccaga	5220
agaccatgaa	ggtgactggg	gtgaccaccc	agggggtgaa	gagcctgctg	accagcatgt	5280
atgtgaagga	gttcctgatc	agcagcagcc	aggatggcca	ccagtggacc	ctgttcttcc	5340

sequencelisting

agaatggcaa ggtgaaggtg ttccagggca accaggacag cttcaccct gtggtgaaca	5400
gcctggaccc cccctgctg accagatacc tgaggattca cccccagagc tgggtgcacc	5460
agattgccct gaggatggag gtgctgggct gtgaggcca ggacctgtac tgacctcgag	5520
gtgtgccttc tagttgccag ccatctgttg tttgcccctc ccccgctgcct tccttgaccc	5580
tggaaggtgc cactcccact gtcctttcct aataaaatga ggaaattgca tcgcattgtc	5640
tgagtaggtg tcattctatt ctgggggggtg ggggtggggca ggacagcaag ggggaggatt	5700
gggaagacaa tagcaggcat gctggggatg cggtgggctc tatgggcacg tggcggccgc	5760
aggaaccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctactgagg	5820
ccgggcgacc aaaggtcgcc cgacgccgg gctttgccg ggcggcctca gtgagcgagc	5880
gagcgcgcag agaggagtg gccaa	5905

<210> 40
 <211> 5355
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 40	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgccgggc aaagcccggg	60
cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgcag agaggagtg	120
gccaaactcca tcactagggg ttctgcggc cgcacgcgtg ttttcgactg tttgctgttt	180
gctgcttgca atgtttgcc attttaggga catgtttgct gtttgctgct tgcaatgttt	240
gcccatttta gggacatgtt tgctgtttgc tgcttgcaat gtttgcccat ttagggaca	300
tgtttgctgt ttgctgcttg caatgtttgc ccattttagg gacaacgcga aacgtcgact	360
ggacacagga cgctgtggtt tctgagccag ggggcgactc agatcccagc cagtggactt	420
agcccctgtt tgctcctccg ataactgggg tgaccttggg taatattcac cagcagcctc	480
ccccgttgcc cctctggatc cactgcttaa atacggacga ggacagggcc ctgtctcctc	540
agcttcaggc accaccactg acctgggaca gtgaatcgcg atcgccacca tgcagattga	600
gctgagcacc tgcttcttcc tgtgcctgct gaggttctgc ttctctgcca ccaggagata	660
ctacctgggg gctgtggagc tgagctggga ctacatgcag tctgacctgg gggagctgcc	720
tgtggatgcc aggttcccc ccagagtgcc caagagcttc cccttcaaca cctctgtggt	780

sequencelisting

gtacaagaag accctgtttg tggagttcac tgaccacctg ttcaacattg ccaagcccag	840
gccccctgg atgggcctgc tgggcccac catccaggct gaggtgtatg acactgtggt	900
gatcacctg aagaacatgg ccagccaccc tgtgagcctg catgctgtgg gggtagagcta	960
ctggaaggcc tctgaggggg ctgagtatga tgaccagacc agccagaggg agaaggagga	1020
tgacaaggtg ttccctgggg gcagccacac ctatgtgtgg caggtgctga aggagaatgg	1080
ccccatggcc tctgaccccc tgtgcctgac ctacagctac ctgagccatg tggacctggt	1140
gaaggacctg aactctggcc tgattggggc cctgctggtg tgcagggagg gcagcctggc	1200
caaggagaag acccagaccc tgcacaagtt catcctgctg ttgctgtgt ttgatgaggg	1260
caagagctgg cactctgaaa ccaagaacag cctgatgcag gacagggatg ctgcctctgc	1320
cagggcctgg cccaagatgc aactgtgaa tggctatgtg aacaggagcc tgcctggcct	1380
gattggctgc cacaggaagt ctgtgtactg gcatgtgatt ggcatgggca ccaccctga	1440
ggtgcacagc atcttctgg agggccacac cttcctggtc aggaaccaca ggcaggccag	1500
cctggagatc agccccatca cttcctgac tgcccagacc ctgctgatgg acctgggcca	1560
gttcctgctg ttctgccaca tcagcagcca ccagcatgat ggcatggagg cctatgtgaa	1620
ggtggacagc tgccctgagg agccccagct gaggatgaag aacaatgagg aggctgagga	1680
ctatgatgat gacctgactg actctgagat ggatgtggtg aggtttgatg atgacaacag	1740
ccccagcttc atccagatca ggtctgtggc caagaagcac cccaagacct gggtagacta	1800
cattgctgct gaggaggagg actgggacta tgccccctg gtgctggccc ctgatgacag	1860
gagctacaag agccagtacc tgaacaatgg ccccagagg attggcagga agtacaagaa	1920
ggtcaggttc atggcctaca ctgatgaaac cttcaagacc agggaggcca tccagcatga	1980
gtctggcatc ctgggcccc tgctgtatgg ggaggtgggg gacaccctgc tgatcatctt	2040
caagaaccag gccagcaggc cctacaacat ctacccccat ggcatcactg atgtgaggcc	2100
cctgtacagc aggaggctgc ccaagggggg gaagcacctg aaggacttcc ccatcctgcc	2160
tggggagatc ttcaagtaca agtggactgt gactgtggag gatggcccca ccaagtctga	2220
ccccaggctg ctgaccagat actacagcag ctttgtgaac atggagaggg acctggcctc	2280
tggcctgatt ggccccctgc tgatctgcta caaggagtct gtggaccaga ggggcaacca	2340

sequencelisting

gatcatgtct gacaagagga atgtgaccc	gttctctgtg tttgatgaga acaggagctg	2400
gtacctgact gagaacatcc agagggttcct	gcccaaccct gctgggggtgc agctggagga	2460
ccctgagttc caggccagca acatcatgca	cagcatcaat ggctatgtgt ttgacagcct	2520
gcagctgtct gtgtgcctgc atgaggtggc	ctactggtac atcctgagca ttggggccca	2580
gactgacttc ctgtctgtgt tcttctctgg	ctacaccttc aagcacaaga tgggtgtatga	2640
ggacaccctg accctgttcc ccttctctgg	ggagactgtg ttcattgagca tggagaaccc	2700
tggcctgtgg attctgggct gccacaactc	tgacttcagg aacaggggca tgactgccct	2760
gctgaaagtc tccagctgtg acaagaacac	tggggactac tatgaggaca gctatgagga	2820
catctctgcc tacctgctga gcaagaacaa	tgccattgag cccaggagct tcagccagaa	2880
ccccccagtg ctgaagaggc accagaggga	gatcaccagg accaccctgc agtctgacca	2940
ggaggagatt gactatgatg acaccatctc	tgtggagatg aagaaggagg actttgacat	3000
ctacgacgag gacgagaacc agagccccag	gagcttcag aagaagacca ggcactactt	3060
cattgctgct gtggagaggc tgtgggacta	tggcatgagc agcagcccc atgtgctgag	3120
gaacagggcc cagtctggct ctgtgcccc	gttcaagaag gtggtgttcc aggagtccac	3180
tgatggcagc ttcaccagc ccctgtacag	aggggagctg aatgagcacc tgggcctgct	3240
gggcccctac atcagggtg aggtggagga	caacatcatg gtgaccttca ggaaccaggc	3300
cagcaggccc tacagcttct acagcagcct	gatcagctat gaggaggacc agaggcagg	3360
ggctgagccc aggaagaact ttgtgaagcc	caatgaaacc aagacctact tctggaaggt	3420
gcagcaccac atggccccca ccaaggatga	gtttgactgc aaggcctggg cctacttctc	3480
tgatgtggac ctggagaagg atgtgcactc	tggcctgatt ggccccctgc tgggtgtgcca	3540
caccaacacc ctgaaccctg cccatggcag	gcaggtgact gtgcaggagt ttgccctgtt	3600
cttcaccatc tttgatgaaa ccaagagctg	gtacttcact gagaacatgg agaggaaactg	3660
caggggcccc tgcaacatcc agatggagga	ccccaccttc aaggagaact acaggttcca	3720
tgccatcaat ggctacatca tggacaccct	gcctggcctg gtgatggccc aggaccagag	3780
gatcagggtg tacctgctga gcatgggcag	caatgagaac atccacagca tccacttctc	3840
tggccatgtg ttcactgtga ggaagaagga	ggagtacaag atggccctgt acaacctgta	3900

sequencelisting

ccctggggtg	tttgagactg	tgagatgct	gcccagcaag	gctggcatct	ggagggtgga	3960
gtgcctgatt	ggggagcacc	tgcatgctgg	catgagcacc	ctgttcctgg	tgtacagcaa	4020
caagtgccag	acccccctgg	gcatggcctc	tggccacatc	agggacttcc	agatcactgc	4080
ctctggccag	tatggccagt	gggcccccaa	gctggccagg	ctgcactact	ctggcagcat	4140
caatgcctgg	agcaccaagg	agcccttcag	ctggatcaag	gtggacctgc	tggcccccat	4200
gatcatccat	ggcatcaaga	cccagggggc	caggcagaag	ttcagcagcc	tgtacatcag	4260
ccagttcatc	atcatgtaca	gcctggatgg	caagaagtgg	cagacctaca	ggggcaacag	4320
cactggcacc	ctgatggtgt	tctttggcaa	tgtggacagc	tctggcatca	agcacaacat	4380
cttcaacccc	cccatcattg	ccagatacat	caggctgcac	cccaccact	acagcatcag	4440
gagcacctg	aggatggagc	tgatgggctg	tgacctgaac	agctgcagca	tgcccctggg	4500
catggagagc	aaggccatct	ctgatgcca	gatcactgcc	agcagctact	tcaccaacat	4560
gtttgccacc	tggagcccca	gcaaggccag	gctgcacctg	cagggcagga	gcaatgcctg	4620
gaggccccag	gtcaacaacc	ccaaggagtg	gctgcaggtg	gacttccaga	agaccatgaa	4680
ggtgactggg	gtgaccaccc	agggggtgaa	gagcctgctg	accagcatgt	atgtgaagga	4740
gttcctgatc	agcagcagcc	aggatggcca	ccagtggacc	ctgttcttcc	agaatggcaa	4800
ggtgaagggtg	ttccagggca	accaggacag	cttcaccctt	gtggtgaaca	gcctggaccc	4860
ccccctgctg	accagatacc	tgaggattca	ccccagagc	tgggtgcacc	agattgcctt	4920
gaggatggag	gtgctgggct	gtgaggccca	ggacctgtac	tgacctcgag	gtgtgccttc	4980
tagttgccag	ccatctgttg	tttgcccctc	ccccgtgcct	tccttgacct	tggaagggtgc	5040
cactcccact	gtccttttct	aataaaatga	ggaaattgca	tcgcattgtc	tgagtaggtg	5100
tcattctatt	ctgggggggtg	gggtggggca	ggacagcaag	ggggaggatt	gggaagacaa	5160
tagcaggcat	gctggggatg	cggtgggctc	tatgggcacg	tggcggccgc	aggaaccctt	5220
agtgatggag	ttggccactc	cctctctgcg	cgctcgctcg	ctcactgagg	ccgggcgacc	5280
aaaggtcgcc	cgacgcccgg	gctttgcccg	ggcggcctca	gtgagcgagc	gagcgcgagc	5340
agagggagtg	gccaa					5355

sequencelisting

<210> 41
 <211> 5618
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 41
 ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg 60
 cgtcgggcga cctttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg 120
 gccaaactcca tcactagggg ttcctgcggc cgcacgcgtg ttttcgacca gagaggtctc 180
 tgacctctgc cccagctcca aggtcagcag gcaggagggg ctgtgtgttt gctgtttgct 240
 gcttgcaatg tttgcccatt ttagggacat gagtaggctg aagtttgttc agtgtggact 300
 tcagaggcag cacacaaaca gccagagagg tctctgacct ctgccccagc tccaagggtca 360
 gcaggcaggg agggctgtgt gtttgctgtt tgctgcttgc aatgtttgcc ctttttaggg 420
 acatgagtag gctgaagttt gttcagtgtg gacttcagag gcagcacaca aacagccaga 480
 gaggtctctg acctctgccc cagctccaag gtcagcaggc agggagggct gtgtgtttgc 540
 tgtttgctgc ttgcaatgtt tgcccatttt agggacatga gtaggctgaa gtttgttcag 600
 tgtggacttc agaggcagca cacaacagc cagagaggct tctgacctct gccccagctc 660
 caaggctcagc aggcaggag ggctgtgtgt ttgctgtttg ctgcttgcaa tgtttgccca 720
 ttttagggac atgagtaggc tgaagtttgt tcagtgtgga cttcagaggc agcacacaaa 780
 cagcacgcga aacgtcgact ggacacagga cgctgtggtt tctgagccag ggggcgactc 840
 agatcccagc cagtggactt agcccctgtt tgctcctccg ataactgggg tgaccttggt 900
 taatattcac cagcagctc ccccgttgcc cctctggatc cactgcttaa atacggacga 960
 ggacagggcc ctgtctcctc agcttcaggc accaccactg acctgggaca gtgaatcgcg 1020
 atcgccacca tgcagattga gctgagcacc tgcttcttcc tgtgcctgct gaggttctgc 1080
 ttctctgcca ccaggagata ctacctgggg gctgtggagc tgagctggga ctacatgcag 1140
 tctgacctgg gggagctgcc tgtggatgcc aggttcccc ccagagtgcc caagagcttc 1200
 cccttcaaca cctctgtggt gtacaagaag accctgtttg tggagttcac tgaccacctg 1260
 ttcaacattg ccaagcccag gccccctgg atgggcctgc tgggccccac catccaggct 1320
 gaggtgtatg aactgtggt gatcaccctg aagaacatgg ccagccacc tgtgagcctg 1380

sequencelisting

catgctgtgg ggggtgagcta ctggaaggcc tctgaggggg ctgagtatga tgaccagacc	1440
agccagaggg agaaggagga tgacaagggtg ttccctgggg gcagccacac ctatgtgtgg	1500
caggtgctga aggagaatgg ccccatggcc tctgaccccc tgtgcctgac ctacagctac	1560
ctgagccatg tggacctggt gaaggacctg aactctggcc tgattggggc cctgctggtg	1620
tgcagggagg gcagcctggc caaggagaag acccagacc tgcacaagtt catcctgctg	1680
tttgctgtgt ttgatgaggg caagagctgg cactctgaaa ccaagaacag cctgatgcag	1740
gacagggatg ctgcctctgc cagggcctgg cccaagatgc acactgtgaa tggctatgtg	1800
aacaggagcc tgcctggcct gattggctgc cacaggaagt ctgtgtactg gcatgtgatt	1860
ggcatgggca ccaccctga ggtgcacagc atcttcctgg agggccacac cttcctggtc	1920
aggaaccaca ggcaggccag cctggagatc agcccatca ccttcctgac tgcccagacc	1980
ctgctgatgg acctgggcca gttcctgctg ttctgccaca tcagcagcca ccagcatgat	2040
ggcatggagg cctatgtgaa ggtggacagc tgccctgagg agccccagct gaggatgaag	2100
aacaatgagg aggctgagga ctatgatgat gacctgactg actctgagat ggatgtggtg	2160
aggtttgatg atgacaacag ccccagcttc atccagatca ggtctgtggc caagaagcac	2220
cccaagacct ggggtgcacta cattgctgct gaggaggagg actgggacta tgccccctg	2280
gtgctggccc ctgatgacag gagctacaag agccagtacc tgaacaatgg ccccagagg	2340
attggcagga agtacaagaa ggtcagggtc atggcctaca ctgatgaaac cttcaagacc	2400
agggaggcca tccagcatga gtctggcatc ctgggcccc tgctgtatgg ggaggtgggg	2460
gacaccctgc tgatcatctt caagaaccag gccagcaggc cctacaacat ctacccccat	2520
ggcatcactg atgtgaggcc cctgtacagc aggaggctgc ccaagggggt gaagcacctg	2580
aaggacttcc ccatcctgcc tggggagatc ttcaagtaca agtggactgt gactgtggag	2640
gatggcccca ccaagtctga ccccagggtc ctgaccagat actacagcag ctttgtgaac	2700
atggagaggg acctggcctc tggcctgatt ggccccctgc tgatctgcta caaggagtct	2760
gtggaccaga ggggcaacca gatcatgtct gacaagagga atgtgatacct gttctctgtg	2820
tttgatgaga acaggagctg gtacctgact gagaacatcc agaggttcct gcccaacctt	2880
gctgggggtgc agctggagga ccctgagttc caggccagca acatcatgca cagcatcaat	2940

sequencelisting

ggctatgtgt ttgacagcct gcagctgtct gtgtgcctgc atgaggtggc ctactggtac	3000
atcctgagca ttggggccca gactgacttc ctgtctgtgt tcttctctgg ctacaccttc	3060
aagcacaaga tgggtgatga ggacaccctg accctgttcc ctttctctgg ggagactgtg	3120
ttcatgagca tggagaacct tggcctgtgg attctgggct gccacaactc tgacttcagg	3180
aacaggggca tgactgccct gctgaaagtc tccagctgtg acaagaacac tggggactac	3240
tatgaggaca gctatgagga catctctgcc tacctgctga gcaagaacaa tgccattgag	3300
cccaggagct tcagccagaa ccccccagtg ctgaagaggc accagaggga gatcaccagg	3360
accaccctgc agtctgacca ggaggagatt gactatgatg acaccatctc tgtggagatg	3420
aagaaggagg actttgacat ctacgacgag gacgagaacc agagccccag gagcttcag	3480
aagaagacca ggcactactt cattgctgct gtggagaggc tgtgggacta tggcatgagc	3540
agcagcccc atgtgctgag gaacagggcc cagtctggct ctgtgcccc gttcaagaag	3600
gtggtgttcc aggagtccac tgatggcagc ttcaccagc ccctgtacag aggggagctg	3660
aatgagcacc tgggcctgct gggcccctac atcagggctg aggtggagga caacatcatg	3720
gtgaccttca ggaaccaggc cagcaggccc tacagcttct acagcagcct gatcagctat	3780
gaggaggacc agaggcaggg ggctgagccc aggaagaact ttgtgaagcc caatgaaacc	3840
aagacctact tctggaaggt gcagcaccac atggccccc ccaaggatga gtttgactgc	3900
aaggcctggg cctacttctc tgatgtggac ctggagaagg atgtgcactc tggcctgatt	3960
ggccccctgc tgggtgtgcca caccaacacc ctgaaccctg cccatggcag gcaggtgact	4020
gtgcaggagt ttgccctgtt cttcaccatc tttgatgaaa ccaagagctg gtacttcact	4080
gagaacatgg agaggaaactg cagggccccc tgcaacatcc agatggagga cccaccttc	4140
aaggagaact acaggttcca tgccatcaat ggctacatca tggacaccct gcctggcctg	4200
gtgatggccc aggaccagag gatcagggtg tacctgctga gcatgggcag caatgagaac	4260
atccacagca tccacttctc tggccatgtg ttcactgtga ggaagaagga ggagtacaag	4320
atggccctgt acaacctgta ccctgggggtg tttgagactg tggagatgct gcccagcaag	4380
gctggcatct ggagggtgga gtgcctgatt ggggagcacc tgcatgctgg catgagcacc	4440
ctgttcctgg tgtacagcaa caagtgccag acccccctgg gcatggcctc tggccacatc	4500

sequencelisting

agggacttcc agatcactgc ctctggccag tatggccagt gggcccccaa gctggccagg	4560
ctgcactact ctggcagcat caatgcctgg agcaccaagg agcccttcag ctggatcaag	4620
gtggacctgc tggcccccat gatcatccat ggcatacaaga cccaggggggc caggcagaag	4680
ttcagcagcc tgtacatcag ccagttcatc atcatgtaca gcctggatgg caagaagtgg	4740
cagacctaca ggggcaacag cactggcacc ctgatggtgt tctttggcaa tgtggacagc	4800
tctggcatca agcacaacat cttcaacccc cccatcattg ccagatacat caggctgcac	4860
cccaccact acagcatcag gagcacctg aggatggagc tgatgggctg tgacctgaac	4920
agctgcagca tgcccctggg catggagagc aaggccatct ctgatgccca gatcactgcc	4980
agcagctact tcaccaacat gtttgccacc tggagcccca gcaaggccag gctgcacctg	5040
cagggcagga gcaatgcctg gaggccccag gtcaacaacc ccaaggagtg gctgcaggctg	5100
gacttccaga agaccatgaa ggtgactggg gtgaccaccc aggggggtgaa gagcctgctg	5160
accagcatgt atgtgaagga gttcctgatc agcagcagcc aggatggcca ccagtggacc	5220
ctgttcttcc agaatggcaa ggtgaagggtg ttccagggca accaggacag cttcacccct	5280
gtggtgaaca gcctggaccc ccccctgctg accagatacc tgaggattca ccccagagc	5340
tgggtgcacc agattgccct gaggatggag gtgctgggct gtgaggccca ggacctgtac	5400
tgacctcgag gaataaagga aatttatattt cattgcaata gtgtgttgggt tttttgtgtc	5460
acgtggcggc cgcaggaacc cctagtgatg gagttggcca ctccctctct gcgcgctcgc	5520
tcgctcactg aggccgggcg accaaaggct gcccgacgcc cgggctttgc ccgggcggcc	5580
tcagtgagcg agcgagcgcg cagagaggga gtggccaa	5618

<210> 42
 <211> 5993
 <212> DNA
 <213> Adeno-Associated Virus 2

<400> 42	
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga cttttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg tttaaagctc gacagggttaa	180
tttttaaaaa gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc	240

sequencelisting

tctggttaat aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc	300
tggacttatc ctctgggcct ctccccaccc ccaggagagg ctgaggttaa tttttaaaaa	360
gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc tctggttaat	420
aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc tggacttatc	480
ctctgggcct ctccccaccc ccaggagagg ctgtcgactg gacacaggac gctgtggttt	540
ctgagccagg gggcgactca gatcccagcc agtggactta gcccctgttt gctcctccga	600
taactggggg gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc	660
actgcttaaa tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga	720
cctgggacag tgaatcgca tcgccaccat gcagattgag ctgagcacct gcttcttctt	780
gtgcctgctg aggttctgct tctctgccac caggagatac tacctggggg ctgtggagct	840
gagctgggac tacatgcagt ctgacctggg ggagctgcct gtggatgcca gggtcccccc	900
cagagtgtcc aagagcttcc cttcaacac ctctgtggtg tacaagaaga ccctgtttgt	960
ggagttcact gaccacctgt tcaacattgc caagcccagg cccccctgga tgggcctgct	1020
gggccccacc atccaggctg aggtgtatga cactgtggtg atcacctga agaacatggc	1080
cagccaccct gtgagcctgc atgctgtggg ggtgagctac tggaaggcct ctgagggggc	1140
tgagtatgat gaccagacca gccagaggga gaaggaggat gacaagggtg tccctggggg	1200
cagccacacc tatgtgtggc aggtgctgaa ggagaatggc cccatggcct ctgacccct	1260
gtgcctgacc tacagctacc tgagccatgt ggacctggtg aaggacctga actctggcct	1320
gattggggcc ctgctggtgt gcagggaggg cagcctggcc aaggagaaga cccagaccct	1380
gcacaagttc atcctgctgt ttgctgtgtt tgatgagggc aagagctggc actctgaaac	1440
caagaacagc ctgatgcagg acagggatgc tgcctctgcc agggcctggc ccaagatgca	1500
cactgtgaat ggctatgtga acaggagcct gcctggcctg attggctgcc acaggaagtc	1560
tgtgtactgg catgtgattg gcatgggcac caccctgag gtgcacagca tcttcttgga	1620
gggccacacc ttcttggtca ggaaccacag gcaggccagc ctggagatca gcccacac	1680
cttctgact gccagaccc tgctgatgga cctgggccag ttctgctgt tctgccacat	1740
cagcagccac cagcatgatg gcatggaggc ctatgtgaag gtggacagct gccctgagga	1800

sequencelisting

gccccagctg	aggatgaaga	acaatgagga	ggctgaggac	tatgatgatg	acctgactga	1860
ctctgagatg	gatgtggtga	ggtttgatga	tgacaacagc	cccagcttca	tccagatcag	1920
gtctgtggcc	aagaagcacc	ccaagacctg	ggtgcactac	attgctgctg	aggaggagga	1980
ctgggactat	gccccctgg	tgctggcccc	tgatgacagg	agctacaaga	gccagtacct	2040
gaacaatggc	ccccagagga	ttggcaggaa	gtacaagaag	gtcaggttca	tggcctacac	2100
tgatgaaacc	ttcaagacca	gggaggccat	ccagcatgag	tctggcatcc	tgggccccct	2160
gctgtatggg	gaggtggggg	acaccctgct	gatcatcttc	aagaaccagg	ccagcaggcc	2220
ctacaacatc	tacccccatg	gcatcactga	tgtgaggccc	ctgtacagca	ggaggctgcc	2280
caaggggggtg	aagcacctga	aggacttccc	catcctgcct	ggggagatct	tcaagtacaa	2340
gtggactgtg	actgtggagg	atggccccac	caagtctgac	cccaggtgcc	tgaccagata	2400
ctacagcagc	tttgtgaaca	tggagaggga	cctggcctct	ggcctgattg	gccccctgct	2460
gatctgctac	aaggagtctg	tggaccagag	gggcaaccag	atcatgtctg	acaagaggaa	2520
tgtgatcctg	ttctctgtgt	ttgatgagaa	caggagctgg	tacctgactg	agaacatcca	2580
gaggttcctg	cccaaccctg	ctggggtgca	gctggaggac	cctgagttcc	aggccagcaa	2640
catcatgcac	agcatcaatg	gctatgtgtt	tgacagcctg	cagctgtctg	tgtgcctgca	2700
tgaggtggcc	tactggtaca	tcctgagcat	tggggcccag	actgacttcc	tgtctgtgtt	2760
cttctctggc	tacaccttca	agcacaagat	ggtgtatgag	gacaccctga	ccctgttccc	2820
cttctctggg	gagactgtgt	tcatgagcat	ggagaaccct	ggcctgtgga	ttctgggctg	2880
ccacaactct	gacttcagga	acaggggcat	gactgccctg	ctgaaagtct	ccagctgtga	2940
caagaacact	ggggactact	atgaggacag	ctatgaggac	atctctgcct	acctgctgag	3000
caagaacaat	gccattgagc	ccaggagctt	cagccagaac	ccccagtgcc	tgaagaggca	3060
ccagagggag	atcaccagga	ccaccctgca	gtctgaccag	gaggagattg	actatgatga	3120
caccatctct	gtggagatga	agaaggagga	ctttgacatc	tacgacgagg	acgagaacca	3180
gagccccagg	agcttccaga	agaagaccag	gcactacttc	attgctgctg	tggagaggct	3240
gtgggactat	ggcatgagca	gcagccccca	tgtgctgagg	aacaggggccc	agtctggctc	3300
tgtgccccag	ttcaagaagg	tgggtgttcca	ggagttcact	gatggcagct	tcaccagccc	3360

sequencelisting

cctgtacaga	ggggagctga	atgagcacct	gggcctgctg	ggcccctaca	tcagggtga	3420
ggtggaggac	aacatcatgg	tgaccttcag	gaaccaggcc	agcaggccct	acagcttcta	3480
cagcagcctg	atcagctatg	aggaggacca	gaggcagggg	gctgagccca	ggaagaactt	3540
tgtgaagccc	aatgaaacca	agacctactt	ctggaaggtg	cagcaccaca	tggccccac	3600
caaggatgag	tttgactgca	aggcctgggc	ctacttctct	gatgtggacc	tggagaagga	3660
tgtgcactct	ggcctgattg	gccccctgct	ggtgtgccac	accaacaccc	tgaaccctgc	3720
ccatggcagg	caggtgactg	tgcaggagtt	tgccctgttc	ttcaccatct	ttgatgaaac	3780
caagagctgg	tacttcactg	agaacatgga	gaggaactgc	agggccccct	gcaacatcca	3840
gatggaggac	cccaccttca	aggagaacta	caggttccat	gccatcaatg	gctacatcat	3900
ggacaccctg	cctggcctgg	tgatggccca	ggaccagagg	atcaggtggg	acctgctgag	3960
catgggcagc	aatgagaaca	tccacagcat	ccacttctct	ggccatgtgt	tcactgtgag	4020
gaagaaggag	gagtacaaga	tggccctgta	caacctgtac	cctgggggtgt	ttgagactgt	4080
ggagatgctg	cccagcaagg	ctggcatctg	gagggtggag	tgccctgattg	gggagcacct	4140
gcatgctggc	atgagcacc	tgcttctggg	gtacagcaac	aagtgccaga	ccccctggg	4200
catggcctct	ggccacatca	gggacttcca	gatcactgcc	tctggccagt	atggccagt	4260
ggcccccaag	ctggccaggc	tgactactc	tggcagcatc	aatgcctgga	gcaccaagga	4320
gcccttcagc	tggatcaagg	tggacctgct	ggcccccatg	atcatccatg	gcatcaagac	4380
ccagggggcc	aggcagaagt	tcagcagcct	gtacatcagc	cagttcatca	tcattgtacag	4440
cctggatggc	aagaagtggc	agacctacag	gggcaacagc	actggcacc	tgatggtgtt	4500
ctttggcaat	gtggacagct	ctggcatcaa	gcacaacatc	ttcaaccccc	ccatcattgc	4560
cagatacatc	aggctgcacc	ccaccacta	cagcatcagg	agcaccctga	ggatggagct	4620
gatgggctgt	gacctgaaca	gctgcagcat	gcccctgggc	atggagagca	aggccatctc	4680
tgatgcccag	atcactgcca	gcagctactt	caccaacatg	tttgccacct	ggagccccag	4740
caaggccagg	ctgcacctgc	agggcaggag	caatgcctgg	aggccccagg	tcaacaaccc	4800
caaggagtgg	ctgcaggtgg	acttcagaa	gaccatgaag	gtgactgggg	tgaccacca	4860
gggggtgaag	agcctgctga	ccagcatgta	tgtgaaggag	ttcctgatca	gcagcagcca	4920

sequencelisting

ggatggccac cagtggaccc tgttcttcca gaatggcaag gtgaaggtgt tccagggcaa	4980
ccaggacagc ttcacccctg tggatgaacag cctggacccc cccctgctga ccagatacct	5040
gaggattcac cccagagct gggatgcacca gattgccctg aggatggagg tgctgggctg	5100
tgaggcccag gacctgtact gacctcgagg aataaaggaa atttattttc attgcaatag	5160
tgtgttggtt ttttgtgtca cgtgccctct cacactacct aaaccacgcc aggacaacct	5220
ctgctcctct ccaccgaaat tccaaggggt cgagtggatg ttggaggtgg catgggccc	5280
gagaggtctc tgacctctgc cccagctcca aggtcagcag gcaggaggagg ctgtgtgttt	5340
gctgtttgct gcttgcaatg tttgcccatt ttagggacat gagtaggctg aagtttgttc	5400
agtgtggact tcagaggcag cacacaaaca gctgctggag gatgggaact gaggggttgg	5460
aagggggcag ggtgagccca gaaactcctg tgtgcctctg agcctgcagc cctctcacac	5520
tacctaaacc acgccaggac aacctctgct cctctccacc gaaattccaa ggggtcgagt	5580
ggatgttga ggtggcatgg gccagagag gtctctgacc tctgccccag ctccaaggtc	5640
agcaggcagg gagggctgtg tgtttgctgt ttgctgcttg caatgtttgc ccattttagg	5700
gacatgagta ggctgaagtt tgttcagtgt ggacttcaga ggcagcacac aaacagctgc	5760
tggaggatgg gaactgaggg gttggaaggg ggcagggtga gccagaaaac tcctgtgtgc	5820
ctctgagcct gcagcacgtg gcggccgcag gaaccctag tgatggagtt ggccactccc	5880
tctctgcgcg ctgctcgtc cactgaggcc gggcgaccaa aggtcgcccg acgcccgggc	5940
tttggccggg cggcctcagt gagcgagcga gcgcgcagag agggagtggc caa	5993

<210> 43

<211> 5337

<212> DNA

<213> Adeno-Associated Virus 2

<400> 43

ttggccactc cctctctgcg cgctcgtcgt ctcactgagg ccgcccgggc aaagcccggg	60
cgatggggcga cttttggtcg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcctgcggc cgcacgcgtg tttaaagtc gacaggttaa	180
tttttaaaaa gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc	240

sequencelisting

tctggttaat aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc	300
tggacttatc ctctgggcct ctccccaccc ccaggagagg ctgaggttaa tttttaaaaa	360
gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc tctggttaat	420
aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc tggacttatc	480
ctctgggcct ctccccaccc ccaggagagg ctgtcgactg gacacaggac gctgtggttt	540
ctgagccagg gggcgactca gatcccagcc agtggactta gcccctgttt gctcctccga	600
taactgggggt gaccttgggt aatattcacc agcagcctcc cccgttgccc ctctggatcc	660
actgcttaaa tacggacgag gacagggccc tgtctcctca gcttcaggca ccaccactga	720
cctgggacag tgaatcgca tcgccaccat gcagattgag ctgagcacct gcttcttctt	780
gtgcctgctg aggttctgct tctctgccac caggagatac tacctggggg ctgtggagct	840
gagctgggac tacatgcagt ctgacctggg ggagctgcct gtggatgcca ggttcccccc	900
cagagtgtccc aagagcttcc ctttcaacac ctctgtggtg tacaagaaga ccctgtttgt	960
ggagttcact gaccacctgt tcaacattgc caagcccagg cccccctgga tgggcctgct	1020
gggccccacc atccaggctg aggtgtatga cactgtggtg atcacctga agaacatggc	1080
cagccaccct gtgagcctgc atgctgtggg ggtgagctac tggaaggcct ctgagggggc	1140
tgagtatgat gaccagacca gccagaggga gaaggaggat gacaagggtgt tccctggggg	1200
cagccacacc tatgtgtggc aggtgctgaa ggagaatggc cccatggcct ctgacccctt	1260
gtgcctgacc tacagctacc tgagccatgt ggacctggtg aaggacctga actctggcct	1320
gattggggcc ctgctggtgt gcagggaggg cagcctggcc aaggagaaga cccagaccct	1380
gcacaagttc atcctgctgt ttgctgtgtt tgatgagggc aagagctggc actctgaaac	1440
caagaacagc ctgatgcagg acagggatgc tgcctctgcc agggcctggc ccaagatgca	1500
cactgtgaat ggctatgtga acaggagcct gcctggcctg attggctgcc acaggaagtc	1560
tgtgtactgg catgtgattg gcatgggcac caccctgag gtgcacagca tcttcttgga	1620
gggccacacc ttcttggtca ggaaccacag gcaggccagc ctggagatca gccccatcac	1680
cttctgact gccagaccc tgctgatgga cctgggccag ttctgctgt tctgccacat	1740
cagcagccac cagcatgatg gcatggaggc ctatgtgaag gtggacagct gccctgagga	1800

sequencelisting

gccccagctg	aggatgaaga	acaatgagga	ggctgaggac	tatgatgatg	acctgactga	1860
ctctgagatg	gatgtggtga	ggtttgatga	tgacaacagc	cccagcttca	tccagatcag	1920
gtctgtggcc	aagaagcacc	ccaagacctg	ggtgcactac	attgctgctg	aggaggagga	1980
ctgggactat	gccccctgg	tgctggcccc	tgatgacagg	agctacaaga	gccagtacct	2040
gaacaatggc	ccccagagga	ttggcaggaa	gtacaagaag	gtcaggttca	tggcctacac	2100
tgatgaaacc	ttcaagacca	gggaggccat	ccagcatgag	tctggcatcc	tgggccccct	2160
gctgtatggg	gaggtggggg	acaccctgct	gatcatcttc	aagaaccagg	ccagcaggcc	2220
ctacaacatc	tacccccatg	gcatcactga	tgtgaggccc	ctgtacagca	ggaggctgcc	2280
caagggggtg	aagcacctga	aggacttccc	catcctgcct	ggggagatct	tcaagtacaa	2340
gtggactgtg	actgtggagg	atggccccac	caagtctgac	cccaggtgcc	tgaccagata	2400
ctacagcagc	tttgtgaaca	tggagaggga	cctggcctct	ggcctgattg	gccccctgct	2460
gatctgctac	aaggagtctg	tggaccagag	gggcaaccag	atcatgtctg	acaagaggaa	2520
tgtgatcctg	ttctctgtgt	ttgatgagaa	caggagctgg	tacctgactg	agaacatcca	2580
gaggttcctg	cccaaccctg	ctggggtgca	gctggaggac	cctgagttcc	aggccagcaa	2640
catcatgcac	agcatcaatg	gctatgtgtt	tgacagcctg	cagctgtctg	tgtgcctgca	2700
tgaggtggcc	tactggtaca	tcctgagcat	tggggcccag	actgacttcc	tgtctgtgtt	2760
cttctctggc	tacaccttca	agcacaagat	ggtgtatgag	gacaccctga	ccctgttccc	2820
cttctctggg	gagactgtgt	tcatgagcat	ggagaaccct	ggcctgtgga	ttctgggctg	2880
ccacaactct	gacttcagga	acaggggcat	gactgccctg	ctgaaagtct	ccagctgtga	2940
caagaacact	ggggactact	atgaggacag	ctatgaggac	atctctgcct	acctgctgag	3000
caagaacaat	gccattgagc	ccaggagctt	cagccagaac	ccccagtgcc	tgaagaggca	3060
ccagagggag	atcaccagga	ccaccctgca	gtctgaccag	gaggagattg	actatgatga	3120
caccatctct	gtggagatga	agaaggagga	ctttgacatc	tacgacgagg	acgagaacca	3180
gagccccagg	agcttccaga	agaagaccag	gcactacttc	attgctgctg	tggagaggct	3240
gtgggactat	ggcatgagca	gcagccccca	tgtgctgagg	aacaggggccc	agtctggctc	3300
tgtgccccag	ttcaagaagg	tgggtgttcca	ggagttcact	gatggcagct	tcaccagccc	3360

sequencelisting

cctgtacaga ggggagctga atgagcacct gggcctgctg ggcccctaca tcagggctga	3420
ggtggaggac aacatcatgg tgaccttcag gaaccaggcc agcaggccct acagcttcta	3480
cagcagcctg atcagctatg aggaggacca gaggcagggg gctgagccca ggaagaactt	3540
tgtgaagccc aatgaaacca agacctactt ctggaaggtg cagcaccaca tggccccac	3600
caaggatgag tttgactgca aggcctgggc ctacttctct gatgtggacc tggagaagga	3660
tgtgcactct ggcctgattg gccccctgct ggtgtgccac accaacaccc tgaaccctgc	3720
ccatggcagg caggtgactg tgcaggagtt tgccctgttc ttcaccatct ttgatgaaac	3780
caagagctgg tacttcactg agaacatgga gaggaactgc agggccccct gcaacatcca	3840
gatggaggac cccaccttca aggagaacta caggttccat gccatcaatg gctacatcat	3900
ggacaccctg cctggcctgg tgatggccca ggaccagagg atcaggtggg acctgctgag	3960
catgggcagc aatgagaaca tccacagcat ccacttctct ggccatgtgt tctactgtgag	4020
gaagaaggag gagtacaaga tggccctgta caacctgtac cctgggggtgt ttgagactgt	4080
ggagatgctg cccagcaagg ctggcatctg gaggggtggag tgcctgattg gggagcacct	4140
gcatgctggc atgagcacc tggttcctggg gtacagcaac aagtgccaga cccccctggg	4200
catggcctct ggccacatca gggacttcca gatcactgcc tctggccagt atggccagt	4260
ggcccccaag ctggccaggc tgcactactc tggcagcatc aatgcctgga gcaccaagga	4320
gcccttcagc tggatcaagg tggacctgct ggcccccatg atcatccatg gcatcaagac	4380
ccagggggcc aggcagaagt tcagcagcct gtacatcagc cagttcatca tcatgtacag	4440
cctggatggc aagaagtggc agacctacag gggcaacagc actggcacc tcatggtgtt	4500
ctttggcaat gtggacagct ctggcatcaa gcacaacatc ttcaaccccc ccatcattgc	4560
cagatacatc aggctgcacc ccaccacta cagcatcagg agcaccctga ggatggagct	4620
gatgggctgt gacctgaaca gctgcagcat gccctgggc atggagagca aggccatctc	4680
tgatggccag atcactgcca gcagctactt caccaacatg tttgccacct ggagccccag	4740
caaggccagg ctgcacctgc agggcaggag caatgcctgg agggcccagg tcaacaaccc	4800
caaggagtgg ctgcaggtgg acttccagaa gaccatgaag gtgactgggg tgaccacca	4860
gggggtgaag agcctgctga ccagcatgta tgtgaaggag ttcctgatca gcagcagcca	4920

sequencelisting

ggatggccac cagtggaccc tgttcttcca gaatggcaag gtgaaggtgt tccagggcaa	4980
ccaggacagc ttcacccctg tggatgaacag cctggacccc cccctgctga ccagatacct	5040
gaggattcac cccagagct gggatgcacca gattgccctg aggatggagg tgctgggctg	5100
tgaggcccag gacctgtact gacctcgagg aataaaggaa atttattttc attgcaatag	5160
tgtgttggtt ttttgtgtca cgtggcggcc gcaggaaccc ctagtgatgg agttggccac	5220
tccctctctg cgcgctcgct cgctcactga ggccgggcga ccaaaggctc cccgacgccc	5280
gggctttgcc cgggcggcct cagtgagcga gcgagcgcg agagaggagc tggccaa	5337

<210> 44

<211> 5542

<212> DNA

<213> Adeno-Associated Virus 2

<400> 44

ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgcccgggc aaagcccggg	60
cgtcgggcga ctttggctg cccggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaaactcca tcactagggg ttcctgcggc cgcacgcgtg tttaaacgtc gacaggttaa	180
tttttaaaaa gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc	240
tctggttaat aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc	300
tggacttatc ctctgggcct ctccccaccc ccaggagagg ctgaggttaa tttttaaaaa	360
gcagtcaaaa gtccaagtgg cccttggcag catttactct ctctgtttgc tctggttaat	420
aatctcagga gcacaaacat tcctggaggc aggagaagaa atcaacatcc tggacttatc	480
ctctgggcct ctccccaccc ccaggagagg ctgtcgactg gacacaggac gctgtggttt	540
ctgagccagg gggcgactca gatcccagcc agtggactta gcccctgttt gtcctccga	600
taactggggg gaccttggtt aatattcacc agcagcctcc cccgttgccc ctctggatcc	660
actgcttaaa tacggacgag gacagggccc tgtctctca gcttcaggca ccaccactga	720
cctgggacag tgaatcgtaa gtatgccttt cactgcgaga gggtctggag aggcttctga	780
gctcccatg gccaggcag gcagcaggtc tggggcagga ggggggttgt ggagtgcttt	840
gactcggggc ctggcccccc catctctgtc ttgcaggaca attgccgtct tctgtctcgt	900
ggggcatcct cctgctggca ggcctgtgct gcctgggtccc tgcgatcgcc accatgcaga	960

sequencelisting

ttgagctgag cacctgcttc ttcctgtgcc tgctgaggtt ctgcttctct gccaccagga	1020
gatactacct gggggctgtg gagctgagct gggactacat gcagtctgac ctgggggagc	1080
tgcctgtgga tgccaggttc cccccagag tgcccaagag cttccccttc aacacctctg	1140
tggtgtacaa gaagaccctg tttgtggagt tctactgacca cctgttcaac attgccaagc	1200
ccaggccccc ctggatgggc ctgctgggcc ccaccatcca ggctgaggtg tatgacactg	1260
tggtgatcac cctgaagaac atggccagcc accctgtgag cctgcatgct gtgggggtga	1320
gctactggaa ggcctctgag ggggctgagt atgatgacca gaccagccag agggagaagg	1380
aggatgacaa ggtgttccct gggggcagcc acacctatgt gtggcaggtg ctgaaggaga	1440
atggcccat ggcctctgac cccctgtgcc tgacctacag ctacctgagc catgtggacc	1500
tggtgaagga cctgaactct ggcctgattg gggccctgct ggtgtgcagg gagggcagcc	1560
tgccaagga gaagaccag accctgcaca agttcatcct gctgtttgct gtgtttgatg	1620
agggaagag ctggcactct gaaaccaaga acagcctgat gcaggacagg gatgctgcct	1680
ctgccagggc ctggcccaag atgcacactg tgaatggcta tgtgaacagg agcctgcctg	1740
gcctgattgg ctgccacagg aagtctgtgt actggcatgt gattggcatg ggcaccaccc	1800
ctgaggtgca cagcatcttc ctggagggcc acaccttctt ggtcaggaac cacaggcagg	1860
ccagcctgga gatcagcccc atcaccttcc tgactgccc aaccctgctg atggacctgg	1920
gccagttcct gctgttctgc cacatcagca gccaccagca tgatggcatg gaggcctatg	1980
tgaaggtgga cagctgccct gaggagcccc agctgaggat gaagaacaat gaggaggctg	2040
aggactatga tgatgacctg actgactctg agatggatgt ggtgaggttt gatgatgaca	2100
acagccccag cttcatccag atcaggtctg tggccaagaa gcacccaag acctgggtgc	2160
actacattgc tgctgaggag gaggactggg actatgcccc cctggtgctg gccctgatg	2220
acaggagcta caagagccag tacctgaaca atggcccca gaggattggc aggaagtaca	2280
agaaggtcag gttcatggcc tacactgatg aaaccttcaa gaccaggag gccatccagc	2340
atgagtctgg catcctgggc cccctgctgt atggggaggt gggggacacc ctgctgatca	2400
tcttcaagaa ccaggccagc aggccctaca acatctaccc ccatggcatc actgatgtga	2460
ggcccctgta cagcaggagg ctgccaagg gggatgaagca cctgaaggac ttcccatcc	2520

sequencelisting

tgcttgggga gatcttcaag tacaagtgga ctgtgactgt ggaggatggc cccaccaagt	2580
ctgaccccag gtgcctgacc agatactaca gcagctttgt gaacatggag agggacctgg	2640
cctctggcct gattggcccc ctgctgatct gctacaagga gtctgtggac cagaggggca	2700
accagatcat gtctgacaag aggaatgtga tcctgttctc tgtgtttgat gagaacagga	2760
gctggtacct gactgagaac atccagaggt tcctgcccac ccctgctggg gtgcagctgg	2820
aggacctga gttccaggcc agcaacatca tgcacagcat caatggctat gtgtttgaca	2880
gcctgcagct gtctgtgtgc ctgcatgagg tggcctactg gtacatcctg agcattgggg	2940
cccagactga cttcctgtct gtgttcttct ctggctacac cttcaagcac aagatggtgt	3000
atgaggacac cctgaccctg ttccccttct ctggggagac tgtgttcatg agcatggaga	3060
accctggcct gtggattctg ggctgccaca actctgactt caggaacagg ggcatgactg	3120
ccctgctgaa agtctccagc tgtgacaaga aactgggga ctactatgag gacagctatg	3180
aggacatctc tgcctacctg ctgagcaaga acaatgccat tgagcccagg agcttcagcc	3240
agaaccccc agtgctgaag aggcaccaga gggagatcac caggaccacc ctgcagtctg	3300
accaggagga gattgactat gatgacacca tctctgtgga gatgaagaag gaggactttg	3360
acatctacga cgaggacgag aaccagagcc ccaggagctt ccagaagaag accaggcact	3420
acttcattgc tgctgtggag aggctgtggg actatggcat gagcagcagc ccccatgtgc	3480
tgaggaacag ggcccagtct ggctctgtgc ccagttcaa gaagggtgtg ttccaggagt	3540
tcactgatgg cagcttcacc cagcccctgt acagagggga gctgaatgag cacctgggcc	3600
tgctggggcc ctacatcagg gctgaggtgg aggacaacat catggtgacc ttcaggaacc	3660
aggccagcag gccctacagc ttctacagca gcctgatcag ctatgaggag gaccagaggc	3720
agggggctga gccaggaag aactttgtga agcccaatga aaccaagacc tactttctgga	3780
aggtgcagca ccacatggcc cccaccaagg atgagtttga ctgcaaggcc tgggcctact	3840
tctctgatgt ggacctggag aaggatgtgc actctggcct gattggcccc ctgctggtgt	3900
gccacaccaa caccctgaac cctgcccattg gcaggcaggt gactgtgcag gagtttgccc	3960
tgttcttcac catctttgat gaaaccaaga gctggtactt cactgagaac atggagagga	4020
actgcagggc cccctgcaac atccagatgg aggacccac cttcaaggag aactacaggt	4080

sequencelisting

tccatgccat caatggctac atcatggaca ccctgcctgg cctgggtgatg gcccaggacc	4140
agaggatcag gtggtacctg ctgagcatgg gcagcaatga gaacatccac agcatccact	4200
tctctggcca tgtgttcact gtgaggaaga aggaggagta caagatggcc ctgtacaacc	4260
tgtaccctgg ggtgtttgag actgtggaga tgctgcccag caaggctggc atctggaggg	4320
tggagtgcct gattggggag cacctgcatg ctggcatgag caccctgttc ctggtgtaca	4380
gcaacaagtg ccagaccccc ctgggcatgg cctctggcca catcaggacgac ttccagatca	4440
ctgcctctgg ccagtatggc cagtggggccc ccaagctggc caggctgcac tactctggca	4500
gcatcaatgc ctggagcacc aaggagccct tcagctggat caaggtggac ctgctggccc	4560
ccatgatcat ccatggcatc aagaccagg gggccaggca gaagttcagc agcctgtaca	4620
tcagccagtt catcatcatg tacagcctgg atggcaagaa gtggcagacc tacaggggca	4680
acagcactgg caccctgatg gtgttctttg gcaatgtgga cagctctggc atcaagcaca	4740
acatcttcaa ccccccatc attgccagat acatcaggct gcacccacc cactacagca	4800
tcaggagcac cctgaggatg gagctgatgg gctgtgacct gaacagctgc agcatgcccc	4860
tgggcatgga gagcaaggcc atctctgatg cccagatcac tgccagcagc tacttcacca	4920
acatgtttgc cacctggagc cccagcaagg ccaggctgca cctgcagggc aggagcaatg	4980
cctggaggcc ccagggtcaac aacccaagg agtggctgca ggtggacttc cagaagacca	5040
tgaaggtgac tggggtgacc acccaggggg tgaagagcct gctgaccagc atgtatgtga	5100
aggagtccct gatcagcagc agccaggatg gccaccagtg gaccctgttc ttccagaatg	5160
gcaaggtgaa ggtgttccag ggcaaccagg acagcttcac ccctgtggtg aacagcctgg	5220
acccccccct gctgaccaga tacctgagga ttcaccccc gagctgggtg caccagattg	5280
ccctgaggat ggaggtgctg ggctgtgagg cccaggacct gtactgacct cgaggaataa	5340
aggaaattta ttttcattgc aatagtgtgt tggttttttg tgtcacgtgg cggccgcagg	5400
aaccctagt gatggagttg gccactccct ctctgcgcgc tcgctcgctc actgaggccg	5460
ggcgacaaa ggtcgccga cgccgggct ttgccgggc ggcctcagtg agcgagcgag	5520
cgcgagaga gggagtggcc aa	5542