

LISTADO DE SECUENCIA

<110> Vrije Universiteit Brussel

<120> ELEMENTOS Y MÉTODOS DE REGULACIÓN DE ÁCIDOS NUCLEICOS ESPECÍFICOS DE MÚSCULO Y USO DE LOS MISMOS

<130> VUB-085-PCT

<150> 20158057.8

<151> 2020-02-18

<160> 59

<170> PatentIn version 3.5

<210> 1

<211> 454

<212> DNA

<213> Secuencia Artificial

<220>

<223> CSk-SH5

<400> 1

cagtttactc accaggggatt cagaggcagc actgctgaac cctgagccct tggcacatca	60
ggttggctgt cagaagtcgg cctttgtaca tacacagttc ctttgtgagg cccagctgcg	120
tgtcctagga gcggggcctc tctccacagc agagctcagc ctctcaagtg tatggacagc	180
acgggtgcct gatgggtgga tttagccatg agttgaaggt ggcttgggga gaatgagagt	240
tctagagata gggagaaggg gttgccaata ggagagtgga attcctgagc acctcgtcac	300
aggcagccga cagaacatga gccgcagggc ccaggctatt tatacctcgc ctgtcactat	360
caggggtcccc acagctcccc ccacctccag ccacacacag caggtccttt tgctctttct	420
ggtcccttct ctactcctcc ccctccctac ctaa	454

<210> 2

<211> 452

<212> DNA

<213> Secuencia Artificial

<220>

<223> Dph-CRE02

<400> 2
gacaggtgcg gttcccggag cgcaggcgca cacatgcacc caccggcgaa cgcggtgacc 60
ctcgccccac cccatcccct ccggcgggca actgggtcgg gtcaggaggg gcaaaccgc 120
tagggagaca ctccatatac ggcccggccc gcgttacctg ggaccgggcc aaccgcctcc 180
ttctttggtc aacgcagggg acccgggcgg gggcccaggc cgcgaaccgg ccgagggagg 240
gggctctagt gcccaacacc caaatatggc tcgagaaggg cagcgacatt cctgcgggggt 300
ggcgcggagg gaatgcccg cggctatata aaacctgagc agagggacaa gcggccaccg 360
cagcggacag cgccaagtga agcctcgctt cccctccgcg gcgaccaggg cccgagccga 420
gagtagcagt ttagctacc cgcccaggta gg 452

<210> 3
<211> 509
<212> DNA
<213> Secuencia Artificial

<220>
<223> Dph-CRE04

<400> 3
ccttttagag aatccacacc tgtcccagtt gctgggttcc actacaaaa gtgaattgca 60
actattttag gagcacttaa gcacatccga aaaatgagt attctgttct ggcccacacc 120
acatcactga tgtaccccct taaagcatgt ccctgagttc atcacagaag actgctcctc 180
ctgtgccctc cacaaggtta gaactgtcct tgtcttaggg aaaaaggaga gagagagaga 240
gagagagaga gagagagaga gagagagaga gagagaggga caggcaccaa ctgggtaacc 300
tctgctgacc ccactctac ttaccataa gtagctcaa atccttctag aaaatctgaa 360
aggcatagcc ccatatatca gtgatataaa tagaacctgc agcaggctct ggtaaagat 420
gactacaagg tggactggga ggcagcccgg ccttggcagg catcatcctc taaatataaa 480
gatgagtttg ttcagccttt gcagaagga 509

<210> 4
<211> 400
<212> DNA
<213> Secuencia Artificial

<220>

<223> Dph-CRE06

<400> 4

gggccagggg acggtggctt ctacgtgctt gggacgttcc cagccaccgt cccatgttcc	60
cggcgggggg ccagctgtcc ccaccgccag cccaactcag cacttggtca gggatatcagc	120
ttggtggggg ggcgtgagcc cagcccctgg ggcggctcag cccatacaag gccatggggc	180
tgggcgcaaa gcatgcctgg gttcaggggtg ggtatgggtgc gggagcaggg aggtgagagg	240
ctcagctgcc ctccagaact cctccctggg gacaaccctt cccagccaat agcacagcct	300
aggtccccct atataaggcc acggctgctg gcccttcctt tgggtcagtg tcacctccag	360
gatacagaca gcccccttc agcccagccc agccaggtac	400

<210> 5

<211> 981

<212> DNA

<213> Secuencia Artificial

<220>

<223> Dph-CRE02-CRE04

<400> 5

gacaggtgcg gttcccggag cgcaggcgca cacatgcacc caccggcgaa cgcggtgacc	60
ctcgccccac cccatcccct ccggcgggca actgggtcgg gtcaggaggg gcaaaccgc	120
tagggagaca ctccatatac ggcccggccc gcgttacctg ggaccgggcc aaccgcctcc	180
ttctttggtc aacgcagggg acccgggcgg gggcccaggc cgcgaaccgg ccgagggagg	240
gggctctagt gccaacacc caaatatggc tcgagaaggg cagcgacatt cctgcggggt	300
ggcgcggagg gaatgcccgc gggctatata aaacctgagc agagggacaa gcggccaccg	360
cagcggacag cgccaagtga agcctcgctt cccctccgcg gcgaccaggg cccgagccga	420
gagtagcagt ttagctacc cgcccaggta ggggcgcgcc gtcgacgat ccccttttag	480
agaatccaca cctgtcccag ttgctgggtt ccactaccaa aagtgaattg caactatatt	540
aggagcactt aagcacatcc gaaaaatgag tgattctggt ctggcccaca ccacatcact	600
gatgtacccc cttaaagcat gtccctgagt tcatcacaga agactgctcc tcctgtgccc	660

tccacaaggt tagaactgtc cttgtcttag ggaaaaagga gagagagaga gagagagaga	720
gagagagaga gagagagaga gagagagagg gacaggcacc aactgggtaa cctctgctga	780
ccccactct actttacat aagtagctcc aaatccttct agaaaatctg aaaggcatag	840
ccccatatat cagtgatata aatagaacct gcagcaggct ctggtaaata atgactacaa	900
ggtggactgg gaggcagccc ggccttggca ggcacatcc tctaaatata aagatgagtt	960
tgttcagcct ttgcagaagg a	981

<210> 6
 <211> 872
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Dph-CRE02-CRE06

<400> 6	
gacaggtgcg gttcccggag cgcaggcgca cacatgcacc caccggcgaa cgcggtgacc	60
ctcgccccac cccatcccct ccggcgggca actgggtcgg gtcaggaggg gcaaaccgcg	120
tagggagaca ctccatatac ggcccggccc gcgttacctg ggaccgggcc aaccgctcc	180
ttctttggtc aacgcagggg acccgggcgg gggcccaggc cgcaaccgg ccgagggagg	240
gggctctagt gcccaacacc caaatatggc tcgagaaggg cagcgacatt cctgcggggt	300
ggcgcgaggagg gaatgcccgc gggctatata aaacctgagc agagggacaa gcggccaccg	360
cagcggacag cgccaagtga agcctcgctt cccctccgcg gcgaccaggg cccgagccga	420
gagtagcagt ttagctacc cgcccaggta ggggcgcgcc gtcgacggat ccgggccagg	480
ggacggtggc ttctacgtgc ttgggacgtt cccagccacc gtcccatgtt cccggcgggg	540
ggccagctgt cccaccgcc agcccaactc agcacttggc cagggtatca gcttggtggg	600
ggggcgtgag cccagcccct ggggcggctc agcccatata agcccatggg gctgggcgca	660
aagcatgcct gggttcaggg tgggtatggc gcgggagcag ggaggtgaga ggctcagctg	720
ccctccagaa ctctccctg gggacaacct ctcccagcca atagcacagc ctaggtcccc	780
ctatataagg ccacggctgc tggcccttcc tttgggtcag tgtcacctcc aggatacaga	840

cagccccct tcagcccagc ccagccaggt ac

872

<210> 7

<211> 929

<212> DNA

<213> Secuencia Artificial

<220>

<223> Dph-CRE04-CRE06

<400> 7

ccttttagag aatccacacc tgtcccagtt gctgggttcc actaccaaaa gtgaattgca 60

actattttag gagcacttaa gcacatccga aaaatgagtg attctgttct ggcccacacc 120

acatcactga tgtaccccct taaagcatgt ccctgagttc atcacagaag actgctcctc 180

ctgtgccctc cacaaggtta gaactgtcct tgtcttaggg aaaaaggaga gagagagaga 240

gagagagaga gagagagaga gagagagaga gagagaggga caggcaccaa ctgggtaacc 300

tctgctgacc ccactctac ttaccataa gtagctccaa atccttctag aaaatctgaa 360

aggcatagcc ccatatatca gtgatataaa tagaacctgc agcaggctct ggtaaatgat 420

gactacaagg tggactggga ggcagcccgg cttggcagg catcatcctc taaatataaa 480

gatgagtttg ttcagccttt gcagaaggag gcgcgccgtc gacggatccg ggccagggga 540

cggtggcttc tacgtgcttg ggacgttccc agccaccgtc ccatgttccc ggcggggggc 600

cagctgtccc caccgccagc ccaactcagc acttggtcag ggtatcagct tgggtgggggg 660

gcgtgagccc agcccctggg gcggctcagc ccatacaagg ccatggggct gggcgcaaag 720

catgcctggg ttcagggtgg gtatggtgcg ggagcaggga ggtgagaggc tcagctgccc 780

tccagaactc ctccctgggg acaaccctc ccagccaata gcacagccta ggtcccccta 840

tataaggcca cggctgctgg cccttccttt gggtcagtgt cacctccagg atacagacag 900

cccccttca gcccagcca gccaggtac 929

<210> 8

<211> 929

<212> DNA

<213> Secuencia Artificial

<220>

<223> Dph-CRE06-CRE04

<400> 8

gggccagggg acggtggctt ctacgtgctt gggacgttcc cagccaccgt cccatgttcc	60
cggcgggggg ccagctgtcc ccaccgccag cccaactcag cacttggtca gggatatcagc	120
ttggtggggg ggcgtgagcc cagcccctgg ggcggctcag cccatacaag gccatggggc	180
tgggcgcaaa gcatgcctgg gttcagggtg ggtatgggtgc gggagcaggg aggtgagagg	240
ctcagctgcc ctccagaact cctccctggg gacaaccctt cccagccaat agcacagcct	300
aggtccccct atataaggcc acggctgctg gcccttcctt tgggtcagtg tcacctccag	360
gatacagaca gcccccttc agcccagccc agccaggtac ggcgcgccgt cgacggatcc	420
ccttttagag aatccacacc tgtcccagtt gctgggttcc actacaaaa gtgaattgca	480
actattttag gagcacttaa gcacatccga aaaatgagtg attctgttct ggcccacacc	540
acatcactga tgtacccctt taaagcatgt ccctgagttc atcacagaag actgctcctc	600
ctgtgccctc cacaaggtta gaactgtcct tgtcttaggg aaaaaggaga gagagagaga	660
gagagagaga gagagagaga gagagagaga gagagaggga caggcaccaa ctgggtaacc	720
tctgctgacc cccactctac ttaccataa gtagctcaa atccttctag aaaatctgaa	780
aggcatagcc ccatatatca gtgatataaa tagaacctgc agcaggctct ggtaaatgat	840
gactacaagg tggactggga ggcagcccgg ccttggcagg catcatcctc taaatataaa	900
gatgagtttg ttcagccttt gcagaagga	929

<210> 9

<211> 1407

<212> DNA

<213> Secuencia Artificial

<220>

<223> Dph-CRE02-CRE04-CRE06

<400> 9

gacaggtgcg gttcccggag cgcaggcgca cacatgcacc caccggcgaa cgcggtgacc	60
ctcgccccac cccatcccct ccggcgggca actgggtcgg gtcaggaggg gcaaaccgc	120

tagggagaca ctccatatac ggcccggccc gcgttacctg ggaccgggcc aacccgctcc	180
ttcttttggtc aacgcagggg acccgggcgg gggcccaggc cgcgaaccgg ccgagggagg	240
gggctctagt gcccaacacc caaatatggc tcgagaaggg cagcgacatt cctgcggggt	300
ggcgcggagg gaatgcccgc gggctatata aaacctgagc agagggacaa gcggccaccg	360
cagcggacag cgccaagtga agcctcgctt cccctccgcg gcgaccaggg cccgagccga	420
gagtagcagt thtagctacc cgcccaggta ggggcgcgcc cgtacggtcg acggatcccc	480
ttttagagaa tccacacctg tcccagttgc tgggttcac taccaaaagt gaattgcaac	540
tatttttagga gcacttaagc acatccgaaa aatgagtgat tctgttcttg cccacaccac	600
atcactgatg tacccttta aagcatgtcc ctgagttcat cacagaagac tgctcctcct	660
gtgccctcca caaggtaga actgtccttg tcttagggaa aaaggagaga gagagagaga	720
gagagagaga gagagagaga gagagagaga gagagggaca ggcaccaact gggtaacctc	780
tgctgacccc cactctactt taccataagt agctccaaat ctttctagaa aatctgaaag	840
gcatagcccc atatatcagt gatataaata gaacctgcag caggctctgg taaatgatga	900
ctacaagggtg gactgggagg cagcccggcc ttggcaggca tcatcctcta aatataaaga	960
tgagtttgtt cagcctttgc agaaggaggc gcgccgtcga cggatccggg ccagggggacg	1020
gtggcttcta cgtgcttggg acgttcccag ccaccgtccc atgttcccgg cggggggcca	1080
gctgtcccca ccgccagccc aactcagcac ttggtcaggg tatcagcttg gtgggggggc	1140
gtgagcccag cccctggggc ggctcagccc atacaaggcc atggggcttg gcgcaaagca	1200
tgcttgggtt cagggtgggt atggtgcggg agcagggagg tgagaggctc agctgccctc	1260
cagaactcct ccctggggac aaccctccc agccaatagc acagcctagg tccccctata	1320
taaggccacg gctgctggcc cttcctttgg gtcagtgtca cctccaggat acagacagcc	1380
ccccttcagc ccagcccagc caggtac	1407

<210> 10

<211> 1461

<212> DNA

<213> Secuencia Artificial

<220>

<223> Dph-CRE02-CRE04-CSk-SH5

<400> 10

gacaggtgcg gttcccggag cgcaggcgca cacatgcacc caccggcgaa cgcggtgacc	60
ctcgccccac cccatcccct ccggcgggca actgggtcgg gtcaggaggg gcaaaccgc	120
tagggagaca ctccatatac ggcccggccc gcgttacctg ggaccgggcc aaccgcctcc	180
ttctttggtc aacgcagggg acccgggcgg gggcccaggc cgcgaaccgg ccgaggagg	240
gggctctagt gccaacacc caaatatggc tcgagaaggg cagcgacatt cctgcggggt	300
ggcgcggagg gaatgcccgc gggctatata aaacctgagc agagggacaa gcggccaccg	360
cagcggacag cgccaagtga agcctcgctt cccctccgcg gcgaccaggg cccgagccga	420
gagtagcagt ttagctacc cgcccaggta ggggcgcgcc gtcgacggat ccccttttag	480
agaatccaca cctgtcccag ttgctgggtt ccactaccaa aagtgaattg caactatatt	540
aggagcactt aagcacatcc gaaaaatgag tgattctgtt ctggcccaca ccacatcact	600
gatgtacccc cttaaagcat gtccctgagt tcatcacaga agactgctcc tcctgtgccc	660
tccacaaggt tagaactgtc cttgtcttag ggaaaaagga gagagagaga gagagagaga	720
gagagagaga gagagagaga gagagagagg gacaggcacc aactgggtaa cctctgctga	780
ccccactct actttacat aagtagctcc aaatccttct agaaaatctg aaaggcatag	840
ccccatata cagtgatata aatagaacct gcagcaggct ctggtaaatg atgactacaa	900
ggtggactgg gaggcagccc ggccttggca ggcacatcc tctaaatata aagatgagtt	960
tgttcagcct ttgcagaagg aggatccgtc gacggcgcgc cacgcgtcag tttactcacc	1020
agggattcag aggcagcact gctgaaccct gagcccttgg cacatcaggt tggctgtcag	1080
aagtcggcct ttgtacatac acagttccct tgtgaggccc agctgcgtgt cctaggagcg	1140
gggcctctct ccacagcaga gctcagcctc tcaagtgtat ggacagcacg ggtgcctgat	1200
gggtggattt agccatgagt tgaaggtggc ttggggagaa tgagagttct agagataggg	1260
agaaggggtt gccaatagga gagtggaatt cctgagcacc tcgtcacagg cagccgacag	1320
aacatgagcc gcagggccca ggctatttat acctcgcctg tcactatcag ggtccccaca	1380

gctcccccca cctccagcca cacacagcag gtccttttgc tctttctggt cccttctcta	1440
ctcctcccc ctcctaccta a	1461

<210> 11
 <211> 1352
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Dph-CRE02-CRE06-Csk-SH5

<400> 11	
gacaggtgcg gttcccggag cgcaggcgca cacatgcacc caccggcgaa cgcggtgacc	60
ctcgccccac cccatcccct ccggcgggca actgggtcgg gtcaggaggg gcaaaccgc	120
tagggagaca ctccatatac ggcccggccc gcgttacctg ggaccgggcc aaccgcgtcc	180
ttctttggtc aacgcagggg acccgggcgg gggcccaggc cggaaccgg ccgagggagg	240
gggctctagt gccaacacc caaatatggc tcgagaaggg cagcgacatt cctgcggggt	300
ggcgcggagg gaatgcccgc gggctatata aaacctgagc agagggacaa gcggccaccg	360
cagcggacag cgccaagtga agcctcgctt cccctccgcg gcgaccaggg cccgagccga	420
gagtagcagt ttagctacc cgcccaggta ggggcgcgcc gtcgacggat ccgggccagg	480
ggacgggtggc ttctacgtgc ttgggacgtt cccagccacc gtcccatgtt cccggcgggg	540
ggccagctgt cccaccgcc agcccaactc agcacttggg cagggtatca gcttggtggg	600
ggggcgtgag cccagcccct ggggcggctc agcccataca aggccatggg gctgggcgca	660
aagcatgcct gggttcaggg tgggtatggg gcgggagcag ggaggtgaga ggctcagctg	720
ccctccagaa ctcctccctg gggacaacct ccccagcca atagcacagc ctaggtcccc	780
ctatataagg ccacggctgc tggcccttcc tttgggtcag tgtcacctcc aggatacaga	840
cagccccct tcagcccagc ccagccagg acggatccgt cgacggcgcg ccacgcgtca	900
gtttactcac cagggttca gaggcagcac tgctgaacct tgagcccttg gcacatcagg	960
ttggctgtca gaagtcggcc tttgtacata cacagttccc ttgtgaggcc cagctgcgtg	1020
tcctaggagc ggggcctctc tccacagcag agctcagcct ctcaagtgtg tggacagcac	1080

gggtgcctga tgggtggatt tagccatgag ttgaaggtgg cttggggaga atgagagttc	1140
tagagatagg gagaaggggt tgccaatagg agagtggaat tcctgagcac ctcgtcacag	1200
gcagccgaca gaacatgagc cgcagggccc aggctattta tacctcgctt gtcactatca	1260
gggtccccac agtccccccc acctccagcc acacacagca ggtccttttg ctctttctgg	1320
tcccttctct actcctcccc ctccctacct aa	1352

<210> 12
 <211> 1409
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Dph-CRE04-CRE06-Csk-SH5

<400> 12	
ccttttagag aatccacacc tgtcccagtt gctgggttcc actaccaaaa gtgaattgca	60
actattttag gagcacttaa gcacatccga aaaatgagtg attctgttct ggccccacacc	120
acatcactga tgtacccccct taaagcatgt ccctgagttc atcacagaag actgctcctc	180
ctgtgccctc cacaaggtta gaactgtcct tgtcttaggg aaaaaggaga gagagagaga	240
gagagagaga gagagagaga gagagagaga gagagaggga caggcaccaa ctgggtaacc	300
tctgtgacc cccactctac ttaccataa gtagctcaa atccttctag aaaatctgaa	360
aggcatagcc ccatatatca gtgatataaa tagaacctgc agcaggctct ggtaaattgat	420
gactacaagg tggactggga ggagccccgg ccttggcagg catcatcctc taaatataaa	480
gatgagtttg ttcagccttt gcagaaggag gcgcgccgtc gacggatccg ggccagggga	540
cgggtggcttc tacgtgcttg ggacgttccc agccaccgtc ccatgttccc ggcggggggc	600
cagctgtccc caccgccagc ccaactcagc acttggtcag ggtatcagct tgggtgggggg	660
gcgtgagccc agccccctggg gcggctcagc ccatacaagg ccatggggct gggcgcaaag	720
catgcctggg ttcaggggtgg gtatggtgcg ggagcaggga ggtgagaggc tcagctgccc	780
tccagaactc ctccctgggg acaaccctc ccagccaata gcacagccta ggtcccccta	840
tataaggcca cggctgctgg cccttccttt gggtcagtgt cacctccagg atacagacag	900

cccccttca gccagccca gccaggtacg gatccgtcga cggcgcgcca cgcgtcagtt	960
tactcaccag ggattcagag gcagcactgc tgaaccctga gcccttggca catcaggttg	1020
gctgtcagaa gtcggccttt gtacatacac agttcccttg tgaggcccag ctgcgtgtcc	1080
taggagcggg gcctctctcc acagcagagc tcagcctctc aagtgtatgg acagcacggg	1140
tgctgatgg gtggatttag ccatgagttg aaggtggctt ggggagaatg agagttctag	1200
agatagggag aaggggttgc caataggaga gtggaattcc tgagcacctc gtcacaggca	1260
gccgacagaa catgagccgc agggcccagg ctatttatac ctcgcctgtc actatcaggg	1320
tccccacagc tccccccacc tccagccaca cacagcaggt ccttttgctc tttctggtcc	1380
cttctctact cctccccctc cctacctaa	1409

<210> 13
 <211> 1409
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Dph-CRE06-CRE04-Csk-SH5

<400> 13	
gggccagggg acggtggctt ctacgtgctt gggacgttcc cagccaccgt cccatgttcc	60
cggcgggggg ccagctgtcc ccaccgccag cccaactcag cacttgggtca gggatatcagc	120
ttgggtggggg ggcgtgagcc cagcccctgg ggcggctcag cccatacaag gccatggggc	180
tgggcgcaaa gcatgcctgg gttcaggggtg ggtatggtgc gggagcaggg aggtgagagg	240
ctcagctgcc ctccagaact cctccctggg gacaaccct cccagccaat agcacagcct	300
aggtccccct atataaggcc acggctgctg gcccttcctt tgggtcagtg tcacctccag	360
gatacagaca gcccccttc agcccagccc agccaggtac ggcgcgccgt cgacggatcc	420
ccttttagag aatccacacc tgtcccagtt gctgggttcc actaccaaaa gtgaattgca	480
actattttag gagcacttaa gcacatccga aaaatgagtg attctgttct ggcccacacc	540
acatcactga tgtaccccct taaagcatgt ccctgagttc atcacagaag actgctcctc	600
ctgtgccctc cacaaggtta gaactgtcct tgtcttaggg aaaaaggaga gagagagaga	660

gagagagaga gagagagaga gagagagaga gagagaggga caggcaccaa ctgggtaacc	720
tctgctgacc cccactctac tttaccataa gtagctccaa atccttctag aaaatctgaa	780
aggcatagcc ccatatatca gtgatataaa tagaacctgc agcaggctct ggtaaatgat	840
gactacaagg tggactggga ggagagcccg ccttggcagg catcatcctc taaatataaa	900
gatgagtttg ttcagccttt gcagaaggag gatccgtcga cggcgcgcca cgcgtcagtt	960
tactcaccag ggattcagag gcagcactgc tgaaccctga gcccttggca catcaggttg	1020
gctgtcagaa gtcggccttt gtacatacac agttcccttg tgaggcccag ctgcgtgtcc	1080
taggagcggg gcctctctcc acagcagagc tcagcctctc aagtgtatgg acagcacggg	1140
tgctgatgg gtggatttag ccatgagttg aaggtggctt ggggagaatg agagttctag	1200
agatagggag aaggggttg caataggaga gtggaattcc tgagcacctc gtcacaggca	1260
gccgacagaa catgagccgc agggcccagg ctatttatac ctcgcctgtc actatcaggg	1320
tccccacagc tccccccacc tccagccaca cacagcaggt ccttttgctc tttctggtcc	1380
cttctctact cctccccctc cctacctaa	1409

<210> 14
 <211> 1893
 <212> DNA
 <213> Secuencia Artificial

 <220>
 <223> Dph-CRE02-CRE04-CRE06-Csk-SH5

<400> 14	
gacaggtgcg gttcccggag cgcaggcgca cacatgcacc caccggcgaa cgcggtgacc	60
ctcgccccac cccatcccct ccggcgggca actgggtcgg gtcaggagg gcaaaccgc	120
tagggagaca ctccatatac ggcccggccc gcgttacctg ggaccgggcc aaccgcctcc	180
ttctttggtc aacgcagggg acccgggcgg gggcccaggc cggaaccgg ccgaggagg	240
gggctctagt gcccaacacc caaatatggc tcgagaaggg cagcgacatt cctgcggggt	300
ggcgcgaggagg gaatgcccgc gggctatata aaacctgagc agagggacaa gcggccaccg	360
cagcggacag cgccaagtga agcctcgctt cccctccgcg gcgaccaggg cccgagccga	420

gagtagcagt ttagctacc cgcccaggta ggggcgcgcc cgtacggtcg acggatcccc	480
ttttagagaa tccacacctg tcccagttgc tgggttccac taccaaaagt gaattgcaac	540
tatttttagga gcacttaagc acatccgaaa aatgagtgat tctgttctgg cccacaccac	600
atcactgatg taccacctta aagcatgtcc ctgagttcat cacagaagac tgctcctcct	660
gtgccctcca caaggtaga actgtccttg tcttagggaa aaaggagaga gagagagaga	720
gagagagaga gagagagaga gagagagaga gagagggaca ggcaccaact gggtaacctc	780
tgctgacccc cactctactt taccataagt agctccaaat ctttctagaa aatctgaaag	840
gcatagcccc atatatcagt gatataaata gaacctgcag caggctcttg taaatgatga	900
ctacaagggtg gactgggagg cagcccggcc ttggcaggca tcctcctcta aatataaaga	960
tgagtttgtt cagcctttgc agaaggaggc gcgccgtcga cggatccggg ccagggggacg	1020
gtggcttcta cgtgcttggg acgttcccag ccaccgtccc atgttcccgg cggggggcca	1080
gctgtcccca ccgccagccc aactcagcac ttggtcaggg tatcagcttg gtgggggggc	1140
gtgagcccag cccctggggc ggctcagccc atacaaggcc atggggcttg gcgcaaagca	1200
tgcttgggtt cagggtgggt atggtgcggg agcaggaggg tgagaggctc agctgccctc	1260
cagaactcct ccctggggac aaccctccc agccaatagc acagcctagg tccccctata	1320
taaggccacg gctgctggcc cttcctttgg gtcagtgtca cctccaggat acagacagcc	1380
ccccttcagc ccagcccagc caggtacgga tccgtcgacc gtacgggcgc gccacgcgtc	1440
agtttactca ccagggattc agaggcagca ctgctgaacc ctgagccctt ggcacatcag	1500
gttggctgtc agaagtcggc ctttgtacat acacagttcc cttgtgaggc ccagctgcgt	1560
gtcctaggag cggggcctct ctccacagca gagctcagcc tctcaagtgt atggacagca	1620
cgggtgcctg atgggtggat ttagccatga gttgaagggt gcttggggag aatgagagtt	1680
ctagagatag ggagaagggg ttgccaatag gagagtggaa ttcctgagca cctcgtcaca	1740
ggcagccgac agaacatgag ccgcagggcc caggctatct atacctgcc tgtcactatc	1800
agggtcccca cagctcccc cacctccagc cacacacagc aggtcctttt gctctttctg	1860
gtcccttctc tactcctccc cctccctacc taa	1893

<210> 15
<211> 334
<212> DNA
<213> Secuencia Artificial

<220>
<223> Promotor Spc5-12

<400> 15
tggccaccgc cttcggcacc atcctcacga cacccaaata tggcgacggg tgaggaatgg 60
tggggagtta tttttagagc ggtgaggaag gtgggcaggc agcaggtggt ggcgctctaa 120
aaataactcc cgggagttat ttttagagcg gaggaatggt ggacacccaa atatggcgac 180
ggttcctcac ccgtcgccat atttgggtgt ccgccctcgg ccggggccgc attcctgggg 240
gccgggcggt gctcccgccc gcctcgataa aaggctccgg ggccggcggc ggcccacgag 300
ctacccggag gagcgggagg cgccaagctc taga 334

<210> 16
<211> 92
<212> DNA
<213> Secuencia Artificial

<220>
<223> Intrón MVM

<400> 16
aagaggtaag ggtttaaggg atggttggtt ggtggggtat taatgtttaa ttacctggag 60
cacctgcctg aaatcacttt ttttcaggtt gg 92

<210> 17
<211> 49
<212> DNA
<213> Secuencia Artificial

<220>
<223> Señal pA

<400> 17
aataaaagat ctttattttc attagatctg tgtgttggtt ttttgtgtg 49

<210> 18
<211> 957
<212> DNA
<213> Homo sapiens

<400> 18
atggcggcag cggcggcggc ggctgcagaa cagcaaagtt ccaatgggtcc tgtaaagaag 60
tccatgcgtg agaaggctgt tgagagaagg agtgtcaata aagagcacao cagtaacttt 120
aaagctggat acattccgat tgatgaagat cgtctccaca aaacagggtt gagaggaaga 180
aagggcaatt tagccatctg tgtgattatc ctcttgttta tcctggctgt catcaattta 240
ataataacac ttgttatttg ggccgtgatt cgcattggac caaatggctg tgatagtatg 300
gagtttcatg aaagtggcct gcttcgattt aagcaagtat ctgacatggg agtgatccac 360
cctctttata aaagcacagt aggaggaagg cgaaatgaaa atttggtcac cactggcaac 420
aaccagccta ttgtttttca gcaagggaca acaaagctca gtgtagaaaa caacaaaact 480
tctattacaa gtgacatcgg catgcagttt tttgacccga ggactcaaaa tatcttattc 540
agcacagact atgaaactca tgagtttcat ttgccaaagt gagtgaaaag tttgaatgtt 600
caaaaggcat ctactgaaag gattaccagc aatgctacca gtgattttaa tataaaagtt 660
gatgggcgtg ctattgtgcg tggaaatgaa ggtgtattca ttatgggcaa aaccattgaa 720
tttcacatgg gtggtaatat ggagttaaag gcggaaaaca gtatcatcct aaatggatct 780
gtgatgggtca gcaccacccg cctaccagct tcctccagtg gagaccagtt gggtagtggt 840
gactgggtac gctacaagct ctgcatgtgt gctgatggga cgctcttcaa ggtgcaagta 900
accagccaga acatgggctg ccaaattctc gacaaccct gtggaaacac tcattaa 957

<210> 19
<211> 957
<212> DNA
<213> Secuencia Artificial

<220>
<223> Gen beta-sarcoglicano optimizado por codón

<400> 19
atggctgctg ccgctgctgc tgcagctgaa cagcaatcta gcaacggccc cgtgaagaaa 60

tccatgcgcg agaaggccgt cgagcggaga tctgtgaaca aagagcacia cagcaacttc	120
aaggccggct acatcccat cgacaggac agactgcaca agacaggcct gagaggcaga	180
aagggcaatc tggccatctg cgtgatcatc ctgctgttca tcctggccgt gatcaacctg	240
atcatcacc tggatcatctg ggccgtgatt agaatcggcc ccaacggctg cgacagcatg	300
gaatttcacg agagcggcct gctgcggttc aaacaggtgt ccgatatggg cgtgatccat	360
ccactgtaca agagcaccgt tggcggcaga agaaacgaga atctgggtcat caccggcaac	420
aaccagccta tcgtgtttca gcagggcacc accaagctga gcgtggaaaa caacaagacc	480
agcatcacca gcgacatcgg catgcagttc ttcgaccca gaacacagaa catcctgttc	540
agcaccgact acgagacaca cgagttccat ctgcctagcg gcgtgaagtc cctgaatgtg	600
cagaaggcca gcaccgagag aatcaccagc aatgccacct ccgacctgaa catcaaagtg	660
gacggcagag ccatcgtgcg gggaaatgag ggcgtgttca tcatgggcaa gaccatcgag	720
ttccacatgg gcggcaacat ggaactgaag gccgagaaca gcatcatcct gaacggcagc	780
gtgatggtgt ccaccacaag actgccaaagc agcagctctg gcgatcagct tggatctggc	840
gactgggtcc gatacaagct gtgtatgtgt gccgacggca ccctgttcaa ggtgcaagtg	900
acaagccaga acatgggctg ccagatcagc gacaaccctt gcggcaatac ccactga	957

<210> 20
 <211> 1653
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Gen luciferase

<400> 20	
atggaagatg ccaaaaacat taagaagggc ccagcggcat tctaccact cgaagacggg	60
accgccggcg agcagctgca caaagccatg aagcgctacg ccctgggtgcc cggcaccatc	120
gcctttaccg acgcacatat cgaggtggac attacctacg ccgagtactt cgagatgagc	180
gttcggctgg cagaagctat gaagcgctat gggctgaata caaacatcg gatcgtgggtg	240
tgcagcgaga atagcttgca gttcttcatg cccgtgttgg gtgccctgtt catcggtgtg	300

gctgtggccc cagctaacga catctacaac gagcgcgagc tgctgaacag catgggcatc	360
agccagccca ccgtcgtatt cgtgagcaag aaagggctgc aaaagatcct caacgtgcaa	420
aagaagctac cgatcataca aaagatcatc atcatggata gcaagaccga ctaccagggc	480
ttccaaagca tgtacacctt cgtgacttcc catttgccac ccggcttcaa cgagtacgac	540
ttcgtgcccc agagcttcga ccgggacaaa accatcgccc tgatcatgaa cagtagtggc	600
agtaccggat tgcccaaggg cgtagcccta ccgcaccgca ccgcttgtgt ccgattcagt	660
catgcccgcg accccatctt cggcaaccag atcatccccg acaccgctat cctcagcgtg	720
gtgccatttc accacggctt cggcatgttc accacgctgg gctacttgat ctgcggcttt	780
cgggtcgtgc tcatgtaccg cttcgaggag gagctattct tgccgagctt gcaagactat	840
aagattcaat ctgccctgct ggtgcccaca ctatttagct tcttcgctaa gagcactctc	900
atcgacaagt acgacctaag caacttgac gagatcgcca gcggcggggc gccgctcagc	960
aaggaggtag gtgaggccgt ggccaaacgc ttccacctac caggcatccg ccagggtac	1020
ggcctgacag aaacaaccag cgccattctg atcacccccg aaggggacga caagcctggc	1080
gcagtaggca aggtgggtgc cttcttcgag gctaaggtgg tggacttgga caccggtaa	1140
acactgggtg tgaaccagcg cggcgagctg tgcgtccgtg gccccatgat catgagcggc	1200
tacgttaaca accccgaggc tacaaacgct ctcatcgaca aggacggctg gctgcacagc	1260
ggcgacatcg cctactggga cgaggacgag cacttcttca tcgtggaccg gctgaagagc	1320
ctgatcaaat acaagggcta ccaggtagcc ccagccgaac tggagagcat cctgctgcaa	1380
cacccaaca tcttcgacgc cggggtcgcc ggcctgcccc acgacgatgc cggcgagctg	1440
cccgccgcag tcgtcgtgct ggaacacggt aaaaccatga ccgagaagga gatcgtggac	1500
tatgtggcca gccaggttac aaccgccaag aagctgcgcg gtggtgttgt gttcgtggac	1560
gaggtgccta aaggactgac cggcaagttg gacgccgca agatccgcga gattctcatt	1620
aaggccaaga agggcggcaa gatcgccgtg taa	1653

<210> 21
 <211> 4882
 <212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CSK-SH5-SPc5-12-MVM-hß-SGco-pA

<400> 21

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccgccct cagtgagcga gcgagcgcg cagagaggag	120
tggccaactc catcactagg ggttcctgcg gccggcgcg cagcgctcag ttactcacc	180
agggattcag aggcagcact gctgaaccct gagcccttgg cacatcaggt tggctgtcag	240
aagtcggcct ttgtacatac acagttccct tgtgaggccc agctgcgtgt cctaggagcg	300
gggcctctct ccacagcaga gctcagcctc tcaagtgtat ggacagcacg ggtgcctgat	360
gggtggattt agccatgagt tgaaggtggc ttggggagaa tgagagttct agagataggg	420
agaagggggt gccaatagga gagtggaatt cctgagcacc tcgtcacagg cagccgacag	480
aacatgagcc gcaggggcca ggctatttat acctgcctg tcactatcag ggtccccaca	540
ggtcccccca cctccagcca cacacagcag gtccttttgc tctttctggt cccttctcta	600
ctcctcccc tccctaccta aggtaccaa cgcgttacgt ggccaccgcc ttcggcacca	660
tcctcacgac acccaaatat ggcgacgggt gaggaatggt ggggagttat ttttagagcg	720
gtgaggaagg tgggcaggca gcagggtgtg gcgctctaaa aataactccc gggagttatt	780
tttagagcgg aggaatgggt gacacccaaa tatggcgacg gttcctcacc cgtcgccata	840
tttgggtgtc cgccctcggc cggggccgca ttcctggggg ccgggcggtg ctcccgccg	900
cctcgataaa aggctccggg gccggcggcg gccacgagc taccggagg agcgggaggc	960
gccaagctct agatctagaa agaggttaagg gtttaaggga tggttggttg gtgggggtatt	1020
aatgtttaat tacctggagc acctgcctga aatcactttt tttcaggttg gaagcttgcc	1080
accatggctg ctgccgtgc tgctgcagct gaacagcaat ctagcaacgg ccccgtaag	1140
aaatccatgc gcgagaaggc cgtcgagcgg agatctgtga acaaagagca caacagcaac	1200
ttcaaggccg gctacatccc catcgacgag gacagactgc acaagacagg cctgagaggc	1260
agaaagggca atctggccat ctgcgtgatc atcctgctgt tcctcctggc cgtgatcaac	1320

ctgatcatca ccctgggtcat ctggggccgtg attagaatcg gcccacacgg ctgacgacagc	1380
atggaatttc acgagagcgg cctgctgcgg ttcaaacagg tgtccgatat gggcgtgatc	1440
catccactgt acaagagcac cgttggcggc agaagaaacg agaatctggt catcaccggc	1500
aacaaccagc ctatcgtgtt tcagcagggc accaccaagc tgagcgtgga aaacaacaag	1560
accagcatca ccagcgacat cggcatgcag ttcttcgacc ccagaacaca gaacatcctg	1620
ttcagcaccg actacgagac acacgagttc catctgccta gggcgtgaa gtccctgaat	1680
gtgcagaagg ccagcaccga gagaatcacc agcaatgcca cctccgacct gaacatcaaa	1740
gtggacggca gagccatcgt gcggggaaat gagggcgtgt tcatcatggg caagaccatc	1800
gagttccaca tgggcggcaa catggaactg aaggccgaga acagcatcat cctgaacggc	1860
agcgtgatgg tgtccaccac aagactgcca agcagcagct ctggcgatca gcttgatct	1920
ggcgactggg tccgatacaa gctgtgtatg tgtgccgacg gcaccctgtt caaggtgcaa	1980
gtgacaagcc agaacatggg ctgccagatc agcgacaacc cttgcggcaa taccactga	2040
ttcgaaacgt tcggtccatc ttgagcatct gacttctggc taaataaaaag atctttatct	2100
tcattagatc tgtgtgttgg tttttgtgt gcgtcgagat ccacggccgc aggaaccct	2160
agtgatggag ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgggcgacc	2220
aaaggtcgcc cgacgcccg gctttgcccg ggcggcctca gtgagcgagc gagcgcgag	2280
ctgcctgcag gggcgctga tgcgggtattt tctccttacg catctgtgcg gtatttcaca	2340
ccgcatacgt caaagcaacc atagtacgcg ccctgtagcg gcgcattaag cgcggcgggt	2400
gtggtgggta cgcgcagcgt gaccgctaca cttgccagcg ccctagcgcc cgctcctttc	2460
gctttcttcc cttcctttct cgccacgttc gccggctttc cccgtcaagc tctaaatcgg	2520
gggctccctt tagggttccg atttagtgct ttacggcacc tcgaccccaa aaaacttgat	2580
ttgggtgatg gttcacgtag tgggccatcg ccctgataga cggtttttcg cccttgacg	2640
ttggagtcca cgttctttaa tagtggactc ttgttccaaa ctggaacaac actcaaccct	2700
atctcgggct attcttttga ttataaggg attttgccga tttcggccta ttggttaaaa	2760
aatgagctga ttaacaaaa atttaacgcg aattttaaca aaatattaac gtttacaatt	2820

ttatggtgca ctctcagtac aatctgctct gatgccgcat agttaagcca gccccgacac	2880
ccgccaacac ccgctgacgc gccctgacgg gcttgtctgc tcccggcatc cgcttacaga	2940
caagctgtga ccgtctccgg gagctgcatg tgtcagaggt tttcaccgtc atcaccgaaa	3000
cgcgcgagac gaaagggcct cgtgatacgc ctatTTTTat aggttaatgt catgataata	3060
atggtttctt agacgtcagg tggcactttt cggggaaatg tgcgcggaac ccctatttgt	3120
ttatTTTTct aaatacattc aaatatgtat ccgctcatga gacaataacc ctgataaatg	3180
cttcaataat attgaaaaag gaagagtatg agtattcaac atttccgtgt cgcccttatt	3240
ccctTTTTtg cggcattttg ccttcctgtt tttgctcacc cagaaacgct ggtgaaagta	3300
aaagatgctg aagatcagtt ggggtgcacga gtgggttaca tcgaactgga tctcaacagc	3360
ggtaagatcc ttgagagttt tcgccccgaa gaacgttttc caatgatgag cacttttaaa	3420
gttctgctat gtggcgcggt attatcccgt attgacgccg ggcaagagca actcggtcgc	3480
cgcatacact attctcagaa tgacttggtt gagtactcac cagtcacaga aaagcatctt	3540
acggatggca tgacagtaag agaattatgc agtgctgcc aaccatgag tgataacact	3600
gcggccaact tacttctgac aacgatcgga ggaccgaagg agctaaccgc tttttgcac	3660
aacatggggg atcatgtaac tcgccttgat cgttgggaaac cggagctgaa tgaagccata	3720
ccaaacgacg agcgtgacac cacgatgcct gtagcaatgg caacaacgtt gcgcaaacta	3780
ttaactggcg aactacttac tctagcttcc cggcaacaat taatagactg gatggaggcg	3840
gataaagttg caggaccact tctgcgctcg gcccttccgg ctggctgggt tattgctgat	3900
aaatctggag ccggtgagcg tgggtctcgc ggtatcattg cagcactggg gccagatggt	3960
aagccctccc gtatcgtagt tatctacacg acggggagtc aggcaactat ggatgaacga	4020
aatagacaga tcgctgagat aggtgcctca ctgattaagc attggtaact gtcagaccaa	4080
gtttactcat atatacttta gattgattta aaacttcatt ttttaattta aaggatctag	4140
gtgaagatcc tttttgataa tctcatgacc aaaatccctt aacgtgagtt ttcgttccac	4200
tgagcgtcag accccgtaga aaagatcaaa ggatcttctt gagatccttt ttttctgcgc	4260
gtaatctgct gcttgcaaac aaaaaaacca ccgctaccag cgggtggtttg tttgccggat	4320

caagagctac caactctttt tccgaaggta actggcttca gcagagcgca gataccaaat	4380
actgtccttc tagtgtagcc gtagttaggc caccacttca agaactctgt agcaccgcct	4440
acatacctcg ctctgctaata cctgttacca gtggctgctg ccagtggcga taagtcgtgt	4500
cttaccgggt tggactcaag acgatagtta ccggataagg cgcagcggtc gggctgaacg	4560
gggggttcgt gcacacagcc cagcttggag cgaacgacct acaccgaact gagataccta	4620
cagcgtgagc tatgagaaag cgccacgctt cccgaaggga gaaaggcgga caggtatccg	4680
gtaagcggca gggtcggaac aggagagcgc acgaggagc ttccaggggg aaacgcctgg	4740
tatctttata gtcctgtcgg gtttcgccac ctctgacttg agcgtcgatt tttgtgatgc	4800
tcgtcagggg ggcggagcct atggaaaaac gccagcaacg cggccttttt acggttcctg	4860
gccttttgct ggccttttgc tc	4882

<210> 22

<211> 4882

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CSK-SH5-SPc5-12-MVM-hβ-SG-pA

<400> 22

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcgc agagagggag	120
tggccaactc catcactagg ggttcctgcg gccggcgcgc cacgcgtcag tttactcacc	180
agggattcag aggcagcact gctgaaccct gagcccttgg cacatcaggt tggctgtcag	240
aagtcggcct ttgtacatac acagttccct tgtgaggccc agctgcgtgt cctaggagcg	300
gggcctctct ccacagcaga gtcagcctc tcaagtgtat ggacagcacg ggtgcctgat	360
gggtggattt agccatgagt tgaaggtggc ttggggagaa tgagagttct agagataggg	420
agaaggggtt gccaatagga gagtggaatt cctgagcacc tcgtcacagg cagccgacag	480
aacatgagcc gcaggggcca ggctatttat acctcgcctg tcactatcag ggtccccaca	540
gctccccca cctccagcca cacacagcag gtccttttgc tctttctggt cccttctcta	600

ctcctcccc tccctaccta aggtacccaa cgcgttacgt ggccaccgcc ttcggcacca	660
tcctcacgac acccaaatat ggcgacgggt gaggaatggt ggggagttat ttttagagcg	720
gtgaggaagg tgggcaggca gcagggtgtg gcgctctaaa aataactccc gggagttatt	780
tttagagcgg aggaatggtg gacacccaaa tatggcgacg gttcctcacc cgtcgccata	840
tttgggtgtc cgccctcggc cggggccgca ttcctggggg ccgggcggtg ctcccggcg	900
cctcgataaa aggctccggg gccggcggcg gccacgagc tacccggagg agcgggaggc	960
gccaagctct agatctagaa agaggttaagg gtttaaggga tggttggttg gtggggtatt	1020
aatgtttaat tacctggagc acctgcctga aatcactttt tttcaggttg gaagcttgcc	1080
accatggcgg cagcggcggc ggcggtgca gaacagcaaa gttccaatgg tcctgtaaag	1140
aagtccatgc gtgagaaggc tgttgagaga aggagtgtca ataaagagca caacagtaac	1200
tttaaagctg gataattcc gattgatgaa gatcgtctcc aaaaaacagg gttgagagga	1260
agaaagggca atttagccat ctgtgtgatt atcctcttgt ttatcctggc tgtcatcaat	1320
ttaataataa cacttgttat ttgggccgtg attcgcattg gaccaaagg ctgtgatagt	1380
atggagtttc atgaaagtgg cctgcttcga ttttaagcaag tatctgacat gggagtgatc	1440
caccctcttt ataaaagcac agtaggagga aggcgaaatg aaaatttggt catcactggc	1500
aacaaccagc ctattgtttt tcagcaaggg acaacaaagc tcagtgtaga aaacaacaaa	1560
acttctatta caagtgacat cggcatgcag ttttttgacc cgaggactca aaatatctta	1620
ttcagcacag actatgaaac tcatgagttt catttgccaa gtggagtga aagtttgaat	1680
gttcaaaagg catctactga aaggattacc agcaatgcta ccagtgattt aaatataaaa	1740
gttgatgggc gtgctattgt gcgtggaaat gaaggtgtat tcattatggg caaaaccatt	1800
gaatttcaca tgggtggtaa tatggagtta aaggcgaaa acagtatcat cctaaatgga	1860
tctgtgatgg tcagcaccac ccgcctacc agttcctcca gtggagacca gttgggtagt	1920
ggtgactggg tacgctacaa gctctgcatg tgtgctgatg ggacgctctt caaggtgcaa	1980
gtaaccagcc agaacatggg ctgccaaatc tcagacaacc cctgtggaaa cactcattaa	2040
ttcgaaacgt tcggtccatc ttgagcatct gacttctggc taaataaaa atctttat	2100

tcattagatc tgtgtgttgg ttttttgtgt gcgtcgagat ccacggccgc aggaaccctt	2160
agtgatggag ttggccactc cctctctgcg cgctcgctcg ctactgagg cggggcgacc	2220
aaaggtcgcc cgacgcccgg gctttgcccc ggcggcctca gtgagcgagc gagcgcgag	2280
ctgcctgcag gggcgccctga tgcggtatct tctccttacg catctgtgcg gtatttcaca	2340
ccgcatacgt caaagcaacc atagtacgcg ccctgtagcg gcgcattaag cgcggcgggt	2400
gtggtgggta cgcgcagcgt gaccgctaca cttgccagcg ccctagcgcc cgctcctttc	2460
gctttcttcc cttcctttct cgccacgttc gccggctttc cccgtcaagc tctaaatcgg	2520
gggctccctt tagggttccg atttagtgct ttacggcacc tcgaccccaa aaaacttgat	2580
ttgggtgatg gttcacgtag tgggccatcg ccctgataga cggtttttcg ccctttgacg	2640
ttggagtcca cgttctttaa tagtggactc ttgttcctaa ctggaacaac actcaaccct	2700
atctcgggct attcctttga tttataaggg attttgccga tttcggccta ttggttaaaa	2760
aatgagctga ttttaacaaa atttaacgcg aattttaaca aaatattaac gtttacaatt	2820
ttatggtgca ctctcagtac aatctgctct gatgccgat agttaagcca gccccgacac	2880
ccgccaacac ccgctgacgc gccctgacgg gcttgtctgc tcccggcatc cgcttacaga	2940
caagctgtga ccgtctccgg gagctgcatg tgtcagaggt tttcaccgtc atcaccgaaa	3000
cgcgcgagac gaaagggcct cgtgatacgc ctatctttat aggttaatgt catgataata	3060
atggtttctt agacgtcagg tggcactttt cggggaaatg tgcgcggaac ccctatttgt	3120
ttatctttct aaatacattc aaatatgtat ccgctcatga gacaataacc ctgataaatg	3180
cttcaataat attgaaaaag gaagagtatg agtattcaac atttccgtgt cgcccttatt	3240
cccttttttg cggcattttg ctttcctgtt tttgctcacc cagaaacgct ggtgaaagta	3300
aaagatgctg aagatcagtt ggggtgcacga gtgggttaca tcgaactgga tctcaacagc	3360
ggtaagatcc ttgagagttt tcgccccgaa gaacgttttc caatgatgag cacttttaaa	3420
gttctgctat gtggcgcggt attatcccgt attgacgccg ggcaagagca actcggtcgc	3480
cgcatacact attctcagaa tgacttgggt gagtactcac cagtcacaga aaagcatctt	3540
acggatggca tgacagtaag agaattatgc agtgctgcc taacatgag tgataacact	3600

gcggccaact tacttctgac aacgatcgga ggaccgaagg agctaaccgc ttttttgcac	3660
aacatggggg atcatgtaac tcgccttgat cgttgggaac cggagctgaa tgaagccata	3720
ccaaacgacg agcgtgacac cacgatgcct gtagcaatgg caacaacgtt gcgcaaacta	3780
ttaactggcg aactacttac tctagcttcc cggcaacaat taatagactg gatggaggcg	3840
gataaagttg caggaccact tctgcgctcg gcccttccgg ctggctggtt tattgctgat	3900
aaatctggag ccggtgagcg tgggtctcgc ggtatcattg cagcactggg gccagatggt	3960
aagccctccc gtatcgtagt tatctacacg acggggagtc aggcaactat ggatgaacga	4020
aatagacaga tcgctgagat aggtgcctca ctgattaagc attggttaact gtcagaccaa	4080
gtttactcat atatacttta gattgattta aaacttcatt ttttaatttaa aaggatctag	4140
gtgaagatcc tttttgataa tctcatgacc aaaatccctt aacgtgagtt ttcgttcac	4200
tgagcgtcag accccgtaga aaagatcaaa ggatcttctt gagatccttt ttttctgcgc	4260
gtaatctgct gcttgcaaac aaaaaaacca ccgctaccag cggtggtttg tttgccggat	4320
caagagctac caactctttt tccgaaggta actggcttca gcagagcgca gataccaaat	4380
actgtccttc tagtgtagcc gtagttaggc caccacttca agaactctgt agcaccgcct	4440
acatacctcg ctctgctaata cctgttacca gtggctgctg ccagtggcga taagtcgtgt	4500
cttaccgggt tggactcaag acgatagtta ccggataagg cgagcggtc gggctgaacg	4560
gggggttcgt gcacacagcc cagcttggag cgaacgacct acaccgaact gagataccta	4620
cagcgtgagc tatgagaaag cgccacgctt cccgaaggga gaaaggcgga caggtatccg	4680
gtaagcggca gggtcggaac aggagagcgc acgaggagc ttccaggggg aaacgcctgg	4740
tatctttata gtcctgtcgg gtttcgccac ctctgacttg agcgtcgatt tttgtgatgc	4800
tcgtcagggg ggcggagcct atggaaaaac gccagcaacg cggccttttt acggttcctg	4860
gccttttgct ggccttttgc tc	4882

<210> 23

<211> 5323

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE02-CSK-SH5-SPc5-12-MVM-hß-SGco-pA

<400> 23

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgcccgg cctcagttag cgagcgagcg cgagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgacctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacgcc cgcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtgtccc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggagggaat gccgcgggc tatataaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccc agccgagagt agcagttgta gctaccgcc caggtagggg cgcgccacgc	600
gtcagtttac tcaccaggga ttcagaggca gactgtctga accctgagcc cttggcacat	660
caggttggct gtcagaagtc ggcctttgta catacacagt tcccttgtga ggcccagctg	720
cgtgtcctag gagcggggcc tctctccaca gcagagctca gcctctcaag tgtatggaca	780
gcacgggtgc ctgatgggtg gatttagcca tgagttgaag gtggcttggg gagaatgaga	840
gttctagaga tagggagaag gggttgccaa taggagagtg gaattcctga gcacctctc	900
acaggcagcc gacagaacat gagccgcagg gccaggcta ttatacctc gcctgtcact	960
atcagggtcc ccacagctcc cccacctcc agccacacac agcaggtcct tttgctcttt	1020
ctggtccctt ctctactcct cccctcct acctaaggta cccaacgcgt tacgtggcca	1080
ccgccttcgg caccatcctc acgacacca aatatggcga cgggtgagga atggtgggga	1140
gttatTTTTTA gagcgggtgag gaagggtggc aggcagcagg tgttggcgct ctaaaaataa	1200
ctcccgggag ttatTTTTtag agcggaggaa tggtggacac ccaaatatgg cgacggttcc	1260
tcacccgtcg ccatatttgg gtgtccgcc tcggccgggg ccgcattcct gggggccggg	1320
cggtgctccc gccgcctcg ataaaaggct ccggggccgg cggcgggcca cgagctaccc	1380

ggaggagcgg gaggcgcaa gctctagatc tagaaagagg taagggttta agggatggtt	1440
ggttggtggg gtattaatgt ttaattacct ggagcacctg cctgaaatca ctttttttca	1500
ggttggaagc ttgccaccat ggctgctgcc gctgctgctg cagctgaaca gcaatctagc	1560
aacggccccg tgaagaaatc catgcgcgag aaggccgtcg agcggagatc tgtgaacaaa	1620
gagcacaaca gcaacttcaa ggccggctac atccccatcg acgaggacag actgcacaag	1680
acaggcctga gaggcagaaa gggcaatctg gccatctgcg tgatcatcct gctgttcatc	1740
ctggccgtga tcaacctgat catcacctg gtcattctggg ccgtgattag aatcggcccc	1800
aacggctgcg acagcatgga atttcacgag agcggcctgc tgcggttcaa acaggtgtcc	1860
gatatgggcg tgatccatcc actgtacaag agcaccgttg gcggcagaag aaacgagaat	1920
ctggtcatca ccggcaacaa ccagcctatc gtgtttcagc agggcaccac caagctgagc	1980
gtggaaaaca acaagaccag catcaccagc gacatcggca tgcagttctt cgaccccaga	2040
acacagaaca tcctgttcag caccgactac gagacacacg agttccatct gcctagcggc	2100
gtgaagtccc tgaatgtgca gaaggccagc accgagagaa tcaccagcaa tgccacctcc	2160
gacctgaaca tcaaagtgga cggcagagcc atcgtgcggg gaaatgaggg cgtgttcatc	2220
atgggcaaga ccatcgagtt ccacatgggc ggcaacatgg aactgaaggc cgagaacagc	2280
atcatcctga acggcagcgt gatggtgtcc accacaagac tgccaagcag cagctctggc	2340
gatcagcttg gatctggcga ctgggtccga tacaagctgt gtatgtgtgc cgacggcacc	2400
ctgttcaagg tgcaagtgc aagccagaac atgggctgcc agatcagcga caacccttgc	2460
ggcaataccc actgattcga aacgtcaagt ccatcttgag catctgactt ctggctaaat	2520
aaaagatctt tattttcatt agatctgtgt gttgggtttt tgtgtgcgtc gagatccacg	2580
gccgcaggaa cccctagtga tggagttggc cactccctct ctgcgcgtc gctcgctcac	2640
tgaggccggg cgaccaaagg tcgcccagc cccgggcttt gcccgggcgg cctcagtgcg	2700
cgagcgagcg cgcagctgcc tgcaggggcg cctgatgcgg tattttctcc ttacgcatct	2760
gtgcggtatt tcacaccgca tacgtcaaag caaccatagt acgcgccctg tagcggcgca	2820
ttaagcgcgg cgggtgtggt ggttacgcg agcgtgaccg ctacacttgc cagcgcccta	2880

gcgcccgctc ctttcgcttt cttcccttcc tttctcgcca cgttcgccgg ctttccccgt	2940
caagctctaa atcggggggt ccctttaggg ttccgattta gtgctttacg gcacctcgac	3000
cccaaaaaac ttgatttggg tgatggttca cgtagtgggc catcgccctg atagacggtt	3060
tttcgccctt tgacgttgga gtccacgttc tttaatagtg gactcttggt ccaaactgga	3120
acaacactca accctatctc gggctattct tttgatttat aagggaattt gccgatttcg	3180
gcctatttgt taaaaaatga gctgatttaa caaaaattta acgcgaattt taacaaaata	3240
ttaacgttta caattttatg gtgcactctc agtacaatct gctctgatgc cgcatagtta	3300
agccagcccc gacacccgcc aacacccgct gacgcgccct gacgggcttg tctgctcccg	3360
gcatccgctt acagacaagc tgtgaccgtc tccgggagct gcatgtgtca gaggttttca	3420
ccgtcatcac cgaaacgcgc gagacgaaag ggcctcgtga tacgcctatt tttataggtt	3480
aatgtcatga taataatggt ttcttagacg tcaggtggca cttttcgggg aaatgtgcgc	3540
ggaaccccta tttgtttatt tttctaaata cattcaaata tgtatccgct catgagacaa	3600
taaccctgat aaatgcttca ataatttga aaaaggaaga gtatgagtat tcaacatttc	3660
cgtgtcgccc ttattccctt ttttgcggca ttttgccttc ctgtttttgc tcaccagaa	3720
acgctggtga aagtaaaaga tgctgaagat cagttgggtg cacgagtggg ttacatcgaa	3780
ctggatctca acagcggtaa gaccttgag agttttcgcc ccgaagaacg ttttccaatg	3840
atgagcactt ttaaagtctt gctatgtggc gcggtattat cccgtattga cgccgggcaa	3900
gagcaactcg gtcgccgat acactattct cagaatgact tggttgagta ctcaccagtc	3960
acagaaaagc atcttacgga tggcatgaca gtaagagaat tatgcagtgc tgccataacc	4020
atgagtgata aactgcggc caacttactt ctgacaacga tcggaggacc gaaggagcta	4080
accgcttttt tgcacaacat gggggatcat gtaactcgcc ttgatcgttg ggaaccggag	4140
ctgaatgaag ccataccaaa cgacgagcgt gacaccacga tgcctgtagc aatggcaaca	4200
acgttgcgca aactattaac tggcgaacta cttactctag cttcccggca acaattaata	4260
gactggatgg aggcgataa agttgcagga ccacttctgc gctcggccct tccggctggc	4320
tggtttattg ctgataaatc tggagccggt gagcgtgggt ctcgcggtat cattgcagca	4380

ctggggccag atggtaagcc ctcccgtatc gtagttatct acacgacggg gagtcaggca	4440
actatggatg aacgaaatag acagatcgct gagataggtg cctcactgat taagcattgg	4500
taactgtcag accaagttta ctcatatata ctttagattg attttaaact tcatttttaa	4560
ttttaaagga tctaggtgaa gatccttttt gataatctca tgaccaaact cccttaacgt	4620
gagttttcgt tccactgagc gtcagacccc gtagaaaaga tcaaaggatc ttcttgagat	4680
cctttttttc tgcgcgtaat ctgctgcttg caaacaaaaa aaccaccgct accagcgggtg	4740
gtttgtttgc cggatcaaga gctaccaact ctttttccga aggtaactgg cttcagcaga	4800
gcgcagatac caaatactgt ccttctagt tagccgtagt taggccacca cttcaagaac	4860
tctgtagcac cgcctacata cctcgtctg ctaatcctgt taccagtggc tgctgccagt	4920
ggcgataagt cgtgtcttac cgggttgac tcaagacgat agttaccgga taaggcgcag	4980
cggtcgggct gaacgggggg ttcgtgcaca cagcccagct tggagcgaac gacctacacc	5040
gaactgagat acctacagcg tgagctatga gaaagcgcca cgcttcccga agggagaaag	5100
gcggacaggt atccggttaag cggcagggtc ggaacaggag agcgcacgag ggagcttcca	5160
gggggaaacg cctggtatct ttatagtcct gtcgggtttc gccacctctg acttgagcgt	5220
cgatttttgt gatgctcgtc aggggggagg agcctatgga aaaacgccag caacgcggcc	5280
tttttacggt tcctggcctt ttgctggcct tttgctcaca tgt	5323

<210> 24

<211> 5391

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE04-CSK-SH5-SPc5-12-MVM-hß-SGco-pA

<400> 24

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcgc agagagggag	120
tggccaactc catcactagg ggcttctgcg gccctttta gagaatccac acctgtccca	180
gttgctgggt tccactacca aaagtgaatt gcaactatct taggagcact taagcacatc	240

cgaaaaatga gtgattctgt tctggcccac accacatcac tgatgtaccc ccttaaagca	300
tgtccctgag ttcacacag aagactgctc ctctgtgcc ctccacaagg ttagaactgt	360
ccttgtctta gggaaaaagg agagagagag agagagagag agagagagag agagagagag	420
agagagagag ggacaggcac caactgggta acctctgctg acccccactc tactttacca	480
taagtagctc caaatccttc tagaaaatct gaaaggcata gccccatata tcagtgatat	540
aaatagaacc tgcagcaggc tctggtaaata gatgactaca aggtggactg ggaggcagcc	600
cggccttggc aggcatcatc ctctaaatat aaagatgagt ttgttcagcc tttgcagaag	660
gaggcgcgcc acgcgtcagt ttactcacca gggattcaga ggcagcactg ctgaaccctg	720
agcccttggc acatcagggt ggctgtcaga agtcggcctt tgtacataca cagttccctt	780
gtgaggccca gctgcgtgtc ctaggagcgg ggcctctctc cacagcagag ctcagcctct	840
caagtgtatg gacagcacgg gtgcctgatg ggtggattta gccatgagtt gaaggtggct	900
tggggagaat gagagttcta gagataggga gaaggggttg ccaataggag agtggaattc	960
ctgagcacct cgtcacaggc agccgacaga acatgagccg cagggccag gctatttata	1020
cctcgcctgt cactatcagg gtccccacag ctccccccac ctccagccac acacagcagg	1080
tccttttgct ctttctggtc ctttctctac tcctccccct ccctacctaa ggtacccaac	1140
gcgttacgtg gccaccgcct tcggcaccat cctcacgaca cccaaatatg gcgacgggtg	1200
aggaatggtg gggagttatt tttagagcgg tgaggaaggt gggcaggcag caggtgttgg	1260
cgctctaaaa ataactcccg ggagttatct ttagagcggg ggaatggttg acacccaaat	1320
atggcgacgg ttcctcacc gtcgccatat ttgggtgtcc gccctcggcc ggggccgcat	1380
tcctgggggc cgggcggtgc tccgcccgc ctcgataaaa ggctccgggg ccggcggcgg	1440
cccacgagct acccgaggga gcgggaggcg ccaagctcta gatctagaaa gaggtaaggg	1500
tttaagggat ggttggttgg tggggtatta atgtttaatt acctggagca cctgcctgaa	1560
atcacttttt tttaggttgg aagcttgcca ccatggctgc tgccgctgct gctgcagctg	1620
aacagcaatc tagcaacggc cccgtgaaga aatccatgcg cgagaaggcc gtcgagcgga	1680
gatctgtgaa caaagagcac aacagcaact tcaaggccgg ctacatcccc atcgacgagg	1740

acagactgca caagacaggc ctgagaggca gaaagggcaa tctggccatc tgcgtgatca	1800
tcctgctgtt catcctggcc gtgatcaacc tgatcatcac cctgggtcatc tgggccgtga	1860
ttagaatcgg ccccaacggc tgcgacagca tggaatttca cgagagcggc ctgctgcggt	1920
tcaaacaggt gtccgatatg ggcgtgatcc atccactgta caagagcacc gttggcggca	1980
gaagaaacga gaatctggtc atcaccggca acaaccagcc tatcgtgttt cagcagggca	2040
ccaccaagct gagcgtggaa aacaacaaga ccagcatcac cagcgacatc ggcattgcagt	2100
tcttcgaccc cagaacacag aacatcctgt tcagcaccga ctacgagaca cacgagttcc	2160
atctgcctag cggcgtgaag tccctgaatg tgcagaaggc cagcaccgag agaatcacca	2220
gcaatgccac ctccgacctg aacatcaaag tggacggcag agccatcgtg cggggaaatg	2280
agggcgtgtt catcatgggc aagaccatcg agttccacat gggcggcaac atggaactga	2340
aggccgagaa cagcatcatc ctgaacggca gcgtgatggg gtccaccaca agactgccaa	2400
gcagcagctc tggcgatcag cttggatctg gcgactgggt ccgatacaag ctgtgtatgt	2460
gtgccgacgg caccctgttc aaggtgcaag tgacaagcca gaacatgggc tgccagatca	2520
gcgacaaccc ttgcggcaat acccactgat tcgaaacgtc acgtccatct tgagcatctg	2580
acttctggct aaataaaaaga tctttatttt cattagatct gtgtgttggt tttttgtgtg	2640
cgtcgagatc cacggccgca ggaacccta gtgatggagt tggccactcc ctctctgcgc	2700
gctcgctcgc tcaactgaggc cgggcgacca aaggtcgccc gacgccggg ctttgcccgg	2760
gcggcctcag tgagcgagcg agcgcgcagc tgcctgcagg ggcgcctgat gcggtatttt	2820
ctccttacgc atctgtgcgg tatttcacac cgcatacgtc aaagcaacca tagtacgcgc	2880
cctgtagcgg cgcattaagc gcggcgggtg tgggtggttac gcgcagcgtg accgctacac	2940
ttgccagcgc cctagcgccc gtccttttcg ctttcttccc ttcctttctc gccacgttcg	3000
ccggctttcc ccgtcaagct ctaaatacggg ggctcccttt agggttccga tttagtgtt	3060
tacggcacct cgaccccaaa aaacttgatt tgggtgatgg ttcacgtagt gggccatcgc	3120
cctgatagac ggtttttcgc cttttgacgt tggagtccac gttctttaat agtggactct	3180
tgttccaaac tggaacaaca ctcaacccta tctcgggcta ttcttttgat ttataaggga	3240

ttttgccgat ttcggcctat tggttaaaaa atgagctgat ttaacaaaaa tttaacgcga	3300
attttaacaa aatattaacg tttacaattt tatgggtgcac tctcagtaca atctgctctg	3360
atgccgcata gttaagccag ccccgacacc cgccaacacc cgctgacgcg ccctgacggg	3420
cttgtctgct cccggcatcc gcttacagac aagctgtgac cgtctccggg agctgcatgt	3480
gtcagagggtt ttcaccgtca tcaccgaaac gcgcgagacg aaagggcctc gtgatacgcc	3540
tattttttata ggtaaatgtc atgataataa tggtttctta gacgtcaggt ggcacttttc	3600
ggggaaatgt gcgcggaacc cctatttggtt tatttttctta aatacattca aatatgtatc	3660
cgctcatgag acaataaccc tgataaatgc ttcaataata ttgaaaaagg aagagtatga	3720
gtattcaaca tttccgtgtc gcccttattc ctttttttgc ggcattttgc cttcctgttt	3780
ttgctcacc cagaaacgctg gtgaaagtaa aagatgctga agatcagttg ggtgcacgag	3840
tgggttacat cgaactggat ctcaacagcg gtaagatcct tgagagtttt cgccccgaag	3900
aacgttttcc aatgatgagc actttttaag ttctgctatg tggcgcggtta ttatcccgt	3960
ttgacgccgg gcaagagcaa ctcggtcgcc gcatacacta ttctcagaat gacttggttg	4020
agtactcacc agtcacagaa aagcatctta cggatggcat gacagtaaga gaattatgca	4080
gtgctgccat aaccatgagt gataacactg cggccaactt acttctgaca acgatcggag	4140
gaccgaagga gctaaccgct tttttgcaca acatggggga tcatgtaact cgccttgatc	4200
gttggggaacc ggagctgaat gaagccatac caaacgacga gcgtgacacc acgatgcctg	4260
tagcaatggc aacaacgttg cgcaactat taactggcga actacttact ctagcttccc	4320
ggcaacaatt aatagactgg atggaggcgg ataaagtgtc aggaccactt ctgcgctcgg	4380
cccttccggc tggctgggtt attgctgata aatctggagc cgggtgagcgt gggctctcgcg	4440
gtatcattgc agcactgggg ccagatggta agccctcccg tatcgtagtt atctacacga	4500
cggggagtca ggcaactatg gatgaacgaa atagacagat cgctgagata ggtgcctcac	4560
tgattaagca ttggttaactg tcagaccaag tttactcata tatacttttag attgatttaa	4620
aacttcattt ttaatttaaa aggatctagg tgaagatcct ttttgataat ctcatgacca	4680
aaatccctta acgtgagttt tcgttcact gagcgtcaga ccccgtagaa aagatcaaag	4740

gatcttcttg agatcctttt tttctgcgcg taatctgctg cttgcaaaca aaaaaaccac	4800
cgctaccagc ggtggtttgt ttgccggatc aagagctacc aactcttttt ccgaaggtaa	4860
ctggcttcag cagagcgagc ataccaaata ctgtccttct agtgtagccg tagttaggcc	4920
accacttcaa gaactctgta gcaccgccta catacctcgc tctgctaata ctgttaccag	4980
tggctgctgc cagtggcgat aagtcgtgtc ttaccgggtt ggactcaaga cgatagttac	5040
cggataaggc gcagcggtcg ggctgaacgg ggggttcgtg cacacagccc agcttggagc	5100
gaacgacctt caccgaactg agatacctac agcgtgagct atgagaaagc gccacgcttc	5160
ccgaaggagc aaaggcggac aggtatccgg taagcggcag ggtcgggaca ggagagcgca	5220
cgagggagct tccaggggga aacgcctggt atctttatag tcctgtcggg tttcgccacc	5280
tctgacttga gcgtcgattt ttgtgatgct cgtcaggggg gcggagccta tggaaaaacg	5340
ccagcaacgc ggccttttta cggttcctgg ccttttgctg gccttttgct c	5391

<210> 25

<211> 5271

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE06-CSK-SH5-SPc5-12-MVM-hß-SGco-pA

<400> 25

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgctg ggcgaccttt	60
ggctgcccgg cctcagtgag cgagcgagcg cgagagagg gaggggccaa ctccatcact	120
aggggttcct gcggccgggc caggggacgg tggcttctac gtgcttgga cgttcccagc	180
caccgtccca tgttcccggc gggggggccag ctgtccccac cgccagccca actcagcact	240
tggtcagggt atcagcttgg tggggggggc tgagcccagc ccctggggcg gctcagccca	300
tacaaggcca tggggctggg cgcaaagcat gcctgggttc aggggtgggta tggcgggga	360
gcagggaggt gagaggctca gctgccctcc agaactcctc cctgggggaca acccctccca	420
gccaatagca cagcctaggt cccctatat aaggccacgg ctgctggccc ttcctttggg	480
tcagtgtcac ctccaggata cagacagccc cccttcagcc cagcccagcc aggtacggcg	540

cgccacgcgt cagtttactc accagggatt cagaggcagc actgctgaac cctgagccct	600
tggcacatca ggttggctgt cagaagtcgg cttttgtaca tacacagttc ctttgtgagg	660
cccagctgcg tgtcctagga gcggggcctc tctccacagc agagctcagc ctctcaagtg	720
tatggacagc acgggtgcct gatgggtgga tttagccatg agttgaaggt ggcttgggga	780
gaatgagagt tctagagata gggagaaggg gttgccaata ggagagtgga attcctgagc	840
acctcgtcac aggcagccga cagaacatga gccgcagggc ccaggctatt tatacctcgc	900
ctgtcactat cagggtcccc acagctcccc ccacctccag ccacacacag caggtccttt	960
tgctctttct ggtccccttct ctactcctcc ccctccctac ctaaggtacc caacgcgtta	1020
cgtggccacc gccttcggca ccatactcac gacacccaaa tatggcgacg ggtgaggaat	1080
ggtggggagt tatttttaga gcggtgagga aggtgggcag gcagcaggtg ttggcgctct	1140
aaaaataact cccgggagtt attttttagag cggaggaatg gtggacaccc aaatatggcg	1200
acggttcctc acccgtcgcc atatttggtt gtccgccctc ggccggggcc gcattcctgg	1260
gggccgggcg gtgctccgc ccgcctcgat aaaaggctcc ggggccggcg gcggcccacg	1320
agctacccgg aggagcggga ggcgccaagc tctagatcta gaaagaggta agggtttaag	1380
ggatggttgg ttggtggggt attaatgttt aattacctgg agcacctgcc tgaaatcact	1440
ttttttcagg ttggaagctt gccacatgg ctgctgccgc tgctgctgca gctgaacagc	1500
aatctagcaa cggccccgtg aagaaatcca tgcgcgagaa ggccgtcgag cggagatctg	1560
tgaacaaaga gcacaacagc aacttcaagg ccggctacat ccccatcgac gaggacagac	1620
tgcacaagac aggcctgaga ggcagaaagg gcaatctggc catctgcgtg atcatcctgc	1680
tgttcatcct ggccgtgatc aacctgatca tcaccctggt catctgggcc gtgattagaa	1740
tcggcccca cggctgcgac agcatggaat ttcacgagag cggcctgctg cggttcaaac	1800
aggtgtccga tatgggcgtg atccatccac tgtacaagag caccgttggc ggcagaagaa	1860
acgagaatct ggtcatcacc ggcaacaacc agcctatcgt gtttcagcag ggcaccacca	1920
agctgagcgt ggaaaacaac aagaccagca tcaccagcga catcggcatg cagttcttcg	1980
accccagaac acagaacatc ctgttcagca ccgactacga gacacacgag ttccatctgc	2040

ctagcggcgt gaagtccttg aatgtgcaga aggccagcac cgagagaatc accagcaatg	2100
ccacctccga cctgaacatc aaagtggacg gcagagccat cgtgcgggga aatgagggcg	2160
tgttcatcat gggcaagacc atcgagttcc acatgggcgg caacatggaa ctgaaggccg	2220
agaacagcat catcctgaac ggcagcgtga tgggtgtccac cacaagactg ccaagcagca	2280
gctctggcga tcagcttggg tctggcgact ggggtccgata caagctgtgt atgtgtgccg	2340
acggcaccct gttcaaggtg caagtgacaa gccagaacat gggctgccag atcagcgaca	2400
acccttgccg caataccac tgattcgaac cgtctagtcc atcttgagca tctgacttct	2460
ggctaaataa aagatcttta ttttcattag atctgtgtgt tggttttttg tgtgcgtcga	2520
gatccacggc cgcaggaacc cctagtgatg gagttggcca ctccctctct gcgcgctcgc	2580
tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgggctttgc ccgggcggcc	2640
tcagtgagcg agcgagcgcg cagctgcctg caggggcgcc tgatgcggta ttttctcctt	2700
acgcatctgt gcggtatttc acaccgcata cgtcaaagca accatagtag gcgccctgta	2760
gcggcgcatc aagcgcgcg ggtgtggtgg ttacgcgcag cgtgaccgct acacttgcca	2820
gcgccctagc gcccgctcct ttcgctttct tcccttcctt tctcgccacg ttcgccggct	2880
ttccccgtca agctctaaat cgggggctcc ctttaggggt ccgatttagt gctttacggc	2940
acctcgaccc caaaaaactt gatttgggtg atggttcacg tagtgggcca tcgccctgat	3000
agacgggttt tcgccctttg acgttgaggt ccacgttctt taatagtgga ctcttgttcc	3060
aaactggaac aacactcaac cctatctcgg gctattcttt tgatttataa gggattttgc	3120
cgatttcggc ctattggtta aaaaatgagc tgatttaaca aaaatttaac gcgaatttta	3180
acaaaaatatt aacgtttaca attttatggt gcactctcag tacaatctgc tctgatgccg	3240
catagttaag ccagccccga caccgcgcaa caccgctga cgcgccctga cgggcttgct	3300
tgctcccggc atccgcttac agacaagctg tgaccgtctc cgggagctgc atgtgtcaga	3360
ggttttcacc gtcacaccg aaacgcgcga gacgaaaggg cctcgtgata cgcctatttt	3420
tatagggtta tgatcatgata ataatggttt cttagacgtc aggtggcact tttcggggaa	3480
atgtgcgcgg aaccctatt tgtttatttt tctaaatata ttcaaatatg tatccgctca	3540

tgagacaata accctgataa atgcttcaat aatattgaaa aaggaagagt atgagtattc	3600
aacatttccg tgtcgccctt attccctttt ttgcggcatt ttgccttcct gtttttgctc	3660
accagaaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca cgagtgggtt	3720
acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc gaagaacgtt	3780
ttccaatgat gagcactttt aaagttctgc tatgtggcgc ggtattatcc cgtattgacg	3840
ccgggcaaga gcaactcggc cgccgcatac actatttctca gaatgacttg gttgagtact	3900
caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta tgcagtgctg	3960
ccataaccat gagtgataac actgcggcca acttacttct gacaacgatc ggaggaccga	4020
aggagctaac cgcttttttg cacaacatgg gggatcatgt aactcgcctt gatcgttggg	4080
aaccggagct gaatgaagcc ataccaaacg acgagcgtga caccacgatg cctgtagcaa	4140
tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct tcccggcaac	4200
aattaataga ctggatggag gcggataaag ttgcaggacc acttctgcgc tcggcccttc	4260
cggctggctg gtttattgct gataaatctg gagccggtga gcgtgggtct cgcggtatca	4320
ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac acgacgggga	4380
gtcaggcaac tatggatgaa cgaaatagac agatcgtga gataggtgcc tcaactgatta	4440
agcattggta actgtcagac caagtttact catatatact ttagattgat ttaaaacttc	4500
atttttaatt taaaaggatc taggtgaaga tcctttttga taatctcatg accaaaatcc	4560
cttaacgtga gttttcgttc cactgagcgt cagaccccgat agaaaagatc aaaggatcctt	4620
cttgagatcc tttttttctg cgcgtaatct gctgcttgca aacaaaaaaaa ccaccgtac	4680
cagcggtggt ttgtttgccg gatcaagagc taccaactct ttttccgaag gtaactggct	4740
tcagcagagc gcagatacca aatactgtcc ttctagtgtg gccgtagtta ggccaccact	4800
tcaagaactc tgtagcaccg cctacatacc tcgctctgct aatcctgtta ccagtggctg	4860
ctgccagtgg cgataagtgc tgtcttaccg gggttgactc aagacgatag ttaccggata	4920
aggcgcagcg gtcgggctga acgggggggtt cgtgcacaca gccagcttg gagcgaacga	4980
cctacaccga actgagatac ctacagcgtg agctatgaga aagcgccacg cttcccgaag	5040

ggagaaaggc ggacaggtat ccggtaaagc gcagggtcgg aacaggagag cgcacgaggg	5100
agcttccagg gggaaacgcc tggatatctt atagtcctgt cgggtttcgc cacctctgac	5160
ttgagcgtcg atttttgtga tgctcgtcag gggggcggag cctatggaaa aacgccagca	5220
acgcggcctt tttacggttc ctggcctttt gctggccttt tgctcacatg t	5271

<210> 26
 <211> 5864
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> AAV-CRE02-CRE04-CSK-SH5-SPc5-12-MVM-hβ-SGco-pA

<400> 26	
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgcccgg cctcagtgag cgagcgagcg cgagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgacctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacgcc cgcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtggcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggagggaat gcccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccc agccgagagt agcagttgta gctaccgcc caggtagggg cgcgccgtcg	600
acggatcccc ttttagagaa tccacacctg tcccagttgc tgggttccac taccaaaagt	660
gaattgcaac tattttagga gcacttaagc acatccgaaa aatgagtgat tctgttctgg	720
cccacaccac atcactgatg taccctta aagcatgtcc ctgagttcat cacagaagac	780
tgctcctcct gtgccctcca caaggttaga actgtccttg tcttagggaa aaaggagaga	840
gagagagaga gagagagaga gagagagaga gagagagaga gagagggaca ggcaccaact	900
gggtaacctc tgctgacccc cactctactt taccataagt agtcctaaat ctttctagaa	960

aatctgaaag gcatagcccc atatatcagt gatataaata gaacctgcag caggctcttg	1020
taaatgatga ctacaagggtg gactgggagg cagcccggcc ttggcaggca tcatcctcta	1080
aatataaaga tgagtttggt cagcctttgc agaaggagga tccgtcgacg gcgcgccacg	1140
cgtcagttta ctcaccagggt attcagaggc agcactgctg aaccttgagc ccttggcaca	1200
tcaggttggc tgtcagaagt cggcctttgt acatacacag ttcccttggtg aggcccagct	1260
gcgtgtccta ggagcggggc ctctctccac agcagagctc agcctctcaa gtgtatggac	1320
agcacgggtg cctgatgggt ggatttagcc atgagttgaa ggtggcttg ggagaatgag	1380
agttctagag ataggagaa ggggttgcca ataggagagt ggaattcctg agcacctcgt	1440
cacaggcagc cgacagaaca tgagccgcag ggcccaggct atttatacct cgcctgtcac	1500
tatcagggtc cccacagctc ccccccctc cagccacaca cagcaggtcc ttttgctctt	1560
tctggtcctt tctctactcc tccccctcc tacctaaggt acccaacgcg ttacgtggcc	1620
accgccttcg gcaccatcct cacgacacc aaatatggcg acgggtgagg aatggtgggg	1680
agttatTTTT agagcggtga ggaaggtggg caggcagcag gtgttggcgc tctaaaaata	1740
actccggga gttatTTTT gagcggagga atggtggaca ccaaatatg gcgacggttc	1800
ctcaccgct gccatatttg ggtgtccgcc ctcgccggg gccgcattcc tgggggccgg	1860
gcggtgctcc cgccgcctc gataaaaggc tccggggccg gcggcgggc acgagctacc	1920
cggaggagcg ggaggcgcca agctctagat ctagaaagag gtaagggttt aagggatggt	1980
tgggttggtg ggtattaatg tttaattacc tggagcacct gcctgaaatc actTTTTTc	2040
aggttgaag cttgccacca tggctgctgc cgctgctgct gcagctgaac agcaatctag	2100
caacggcccc gtgaagaaat ccatgcgcga gaaggccgtc gagcggagat ctgtgaacaa	2160
agagcacaac agcaacttca aggccggcta catccccatc gacgaggaca gactgcacaa	2220
gacaggcctg agaggcagaa agggcaatct ggccatctgc gtgatcatcc tgctgttcat	2280
cctggccgtg atcaacctga tcatcaccct ggtcatctgg gccgtgatta gaatcgcccc	2340
caacggctgc gacagcatgg aatttcacga gagcggcctg ctgcggttca aacagggtgc	2400
cgatatgggc gtgatccatc cactgtacaa gagcaccgtt ggcggcagaa gaaacgagaa	2460

tctggtcatc accggcaaca accagcctat cgtgttttcag cagggcacca ccaagctgag	2520
cgtggaaaac aacaagacca gcatcaccag cgacatcggc atgcagttct tcgaccccag	2580
aacacagaac atcctgttca gcaccgacta cgagacacac gagttccatc tgcctagcgg	2640
cgtgaagtcc ctgaatgtgc agaaggccag caccgagaga atcaccagca atgccacctc	2700
cgacctgaac atcaaagtgg acggcagagc catcgtgcgg ggaaatgagg gcgtgttcat	2760
catgggcaag accatcgagt tccacatggg cggcaacatg gaactgaagg ccgagaacag	2820
catcatcctg aacggcagcg tgatgggtgc caccacaaga ctgccaagca gcagctctgg	2880
cgatcagctt ggatctggcg actgggtccg atacaagctg tgtatgtgtg ccgacggcac	2940
cctgttcaag gtgcaagtga caagccagaa catgggctgc cagatcagcg acaacccttg	3000
cggcaatacc cactgattcg aaacgtcaag tccatcttga gcatctgact tctggctaaa	3060
taaaagatct ttattttcat tagatctgtg tgttggtttt ttgtgtgcgt cgagatccac	3120
ggccgcagga acccctagt atggagttgg ccactccctc tctgcgcgct cgctcgtca	3180
ctgaggccgg gcgaccaaag gtcgcccgc gcccgggctt tgcccgggcg gcctcagtga	3240
gcgagcgagc gcgcagctgc ctgcaggggc gcctgatgcg gtattttctc cttacgcatc	3300
tgtgcggtat ttcacaccgc atacgtcaaa gcaaccatag tacgcgccct gtagcggcgc	3360
attaagcgcg gcgggtgtgg tggttacgcg cagcgtgacc gctacacttg ccagcgccct	3420
agcgcccgt ctttctgctt tcttcccttc ctttctcgcc acgttcgccg gctttccccg	3480
tcaagctcta aatcgggggc tccctttagg gttccgattt agtgctttac ggcacctga	3540
ccccaaaaaa cttgatttgg gtgatggttc acgtagtggg ccatcgccct gatagacggt	3600
ttttcgccct ttgacgttgg agtccacgtt ctttaatagt ggactcttgt tccaaactgg	3660
aacaacactc aaccctatct cgggctattc ttttgattta taagggattt tgccgatttc	3720
ggcctattgg ttaaaaaatg agctgattta acaaaaattt aacgcgaatt ttaacaaaat	3780
attaacgttt acaattttat ggtgcactct cagtacaatc tgctctgatg ccgcatagtt	3840
aagccagccc cgacacccgc caacacccgc tgacgcgcc tgacgggctt gtctgctccc	3900
ggcatccgct tacagacaag ctgtgaccgt ctccgggagc tgcatgtgtc agaggttttc	3960

accgtcatca ccgaaacgcg cgagacgaaa gggcctcgtg atacgcctat ttttataggt	4020
taatgtcatg ataataatgg tttcttagac gtcaggtggc acttttcggg gaaatgtgcg	4080
cggaacccct atttgtttat ttttctaaat acattcaa atgtatccgc tcatgagaca	4140
ataaccctga taaatgcttc aataatattg aaaaaggaag agtatgagta ttcaacattt	4200
ccgtgtcgcc cttattccct tttttgcggc attttgcctt cctgtttttg ctcaccaga	4260
aacgctggtg aaagtaaaag atgctgaaga tcagttgggt gcacgagtgg gttacatcga	4320
actggatctc aacagcggtg agatccttga gagttttcgc cccgaagaac gttttccaat	4380
gatgagcact tttaaagtgc tgctatgtgg cgcggtatta tcccgtattg acgccgggca	4440
agagcaactc ggtcgccgca tacactattc tcagaatgac ttggttgagt actcaccagt	4500
cacagaaaag catcttacgg atggcatgac agtaagagaa ttatgcagtg ctgccataac	4560
catgagtgat aacactgcgg ccaacttact tctgacaacg atcggaggac cgaaggagct	4620
aaccgctttt ttgcacaaca tgggggatca tgtaactcgc cttgatcggt gggaaccgga	4680
gctgaatgaa gccataccaa acgacgagcg tgacaccacg atgcctgtag caatggcaac	4740
aacgttgcg aaactattaa ctggcgaaact acttactcta gcttcccggc aacaattaat	4800
agactggatg gaggcggata aagttgcagg accacttctg cgctcggccc ttccggctgg	4860
ctggtttatt gctgataaat ctggagccgg tgagcgtggg tctcgcggta tcattgcagc	4920
actggggcca gatggtaagc cctcccgtat cgtagttatc tacacgacgg ggagtcaggc	4980
aactatggat gaacgaaata gacagatcgc tgagataggt gcctcactga ttaagcattg	5040
gtaactgtca gaccaagttt actcatatat acttttagatt gatttaaaac ttcattttta	5100
atttaaaagg atctaggtga agatcctttt tgataatctc atgacaaaaa tcccttaacg	5160
tgagttttcg ttccactgag cgtcagaccc cgtagaaaag atcaaaggat cttcttgaga	5220
tccttttttt ctgcgcgtaa tctgctgctt gcaaacaaaa aaaccaccgc taccagcgg	5280
ggtttgtttg ccggatcaag agctaccaac tctttttccg aaggtaactg gcttcagcag	5340
agcgcagata ccaaatactg tccttctagt gtagccgtag ttaggccacc acttcaagaa	5400
ctctgtagca ccgcctacat acctcgctct gctaatacctg ttaccagtgg ctgctgccag	5460

tggcgataag tcgtgtctta ccgggttga ctcaagacga tagttaccgg ataaggcgca	5520
gcgggtcgggc tgaacggggg gttcgtgcac acagcccagc ttggagcgaa cgacctacac	5580
cgaactgaga tacctacagc gtgagctatg agaaagcgcc acgcttcccg aaggagagaaa	5640
ggcggacagg tatccggtaa gcggcagggt cggaacagga gagcgcacga gggagcttcc	5700
agggggaaac gcctggtatc tttatagtcc tgtcgggttt cgccacctct gacttgagcg	5760
tcgatttttg tgatgctcgt caggggggcg gagcctatgg aaaaacgcca gcaacgcggc	5820
ctttttacgg ttcctggcct tttgctggcc tttgctcac atgt	5864

<210> 27

<211> 5864

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE02-CRE04-CSK-SH5-SPc5-12-MVM-hß-SG-pA

<400> 27

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgccccg cctcagtgag cgagcgagcg cgagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgaccctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacggcc cggcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtgcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggaggggaat gcccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccg agccgagagt agcagttgta gctacccgcc caggtagggg cgcgccgtcg	600
acggatcccc ttttagagaa tccacacctg tcccagttgc tgggttccac taccaaaagt	660
gaattgcaac tattttagga gcacttaagc acatccgaaa aatgagtgat tctgttctgg	720
cccacaccac atcactgatg tacccttcta aagcatgtcc ctgagttcat cacagaagac	780

tgctcctcct gtgccctcca caaggtaga actgtccttg tcttagggaa aaaggagaga	840
gagagagaga gagagagaga gagagagaga gagagagaga gagagggaca ggcaccaact	900
gggtaacctc tgctgacccc cactctactt taccataagt agctccaaat ccttctagaa	960
aatctgaaag gcatagcccc atatatcagt gatataaata gaacctgcag caggctcttg	1020
taaatgatga ctacaagggtg gactgggagg cagcccggcc ttggcaggca tcctcctcta	1080
aatataaaga tgagtttgtt cagcctttgc agaaggagga tccgtcgacg gcgcgccacg	1140
cgtcagttta ctcaccagggt attcagaggc agcactgctg aaccttgagc ctttggcaca	1200
tcaggttggc tgtcagaagt cggcctttgt acatacacag ttcccttggtg agggccagct	1260
gcgtgtccta ggagcggggc ctctctccac agcagagctc agcctctcaa gtgtatggac	1320
agcacgggtg cctgatgggt ggatttagcc atgagttgaa ggtggcttg ggagaatgag	1380
agttctagag ataggagaa ggggttgcca ataggagagt ggaattcctg agcacctcgt	1440
cacaggcagc cgacagaaca tgagccgcag ggcccaggct atttatacct cgcctgtcac	1500
tatcagggtc cccacagctc cccccacctc cagccacaca cagcagggtc ttttgctctt	1560
tctggtccct tctctactcc tccccctccc tacctaaggt acccaacgcg ttacgtggcc	1620
accgccttcg gcaccatcct cacgacaccc aaatatggcg acgggtgagg aatggtgggg	1680
agttatTTTT agagcgggtga ggaagggtggg caggcagcag gtgttggcgc tctaaaaata	1740
actcccggga gttatTTTT gagcggagga atggtggaca cccaaatatg gcgacggttc	1800
ctcaccgctc gccatatttg ggtgtccgcc ctcgccggg gccgcattcc tgggggcccgg	1860
gcggtgctcc cgccgcctc gataaaaggc tccggggccg gcggcggccc acgagctacc	1920
cggaggagcg ggaggcgcca agctctagat ctagaaagag gtaagggttt aagggatggt	1980
tggttggtgg ggtattaatg ttttaattacc tggagcacct gcctgaaatc actTTTTTt	2040
aggttggaag cttgccacca tggcggcagc ggcggcggcg gctgcagaac agcaaagttc	2100
caatggtcct gtaaagaagt ccatgcgtga gaaggctgtt gagagaagga gtgtcaataa	2160
agagcacaac agtaacttta aagctggata cattccgatt gatgaagatc gtctccacaa	2220
aacagggttg agaggaagaa agggcaattt agccatctgt gtgattatcc tcttgTTTT	2280

cctggctgtc atcaatttaa taataacact tgttatttgg gccgtgattc gcattggacc	2340
aaatggctgt gatagtatgg agtttcatga aagtggcctg cttcgattta agcaagtatc	2400
tgacatggga gtgatccacc ctctttataa aagcacagta ggaggaaggc gaaatgaaaa	2460
tttggtcatc actggcaaca accagcctat tgtttttcag caagggacaa caaagctcag	2520
tgtagaaaac aacaaaactt ctattacaag tgacatcggc atgcagtttt ttgacccgag	2580
gactcaaaat atcttattca gcacagacta tgaaactcat gagtttcatt tgccaagtgg	2640
agtgaaaagt ttgaatgttc aaaaggcatc tactgaaagg attaccagca atgctaccag	2700
tgattttaa ataaaaagttg atgggcgtgc tattgtgcgt ggaaatgaag gtgtattcat	2760
tatgggcaaa accattgaat ttcacatggg tggtaatatg gagttaaagg cggaaaacag	2820
tatcatccta aatggatctg tgatggtcag caccacccgc ctaccagtt cctccagtgg	2880
agaccagttg ggtagtggtg actgggtacg ctacaagctc tgcatgtgtg ctgatgggac	2940
gctcttcaag gtgcaagtaa ccagccagaa catgggctgc caaatctcag acaaccctg	3000
tggaacact cattaattcg aaacgtcaag tccatcttga gcatctgact tctggctaaa	3060
taaaagatct ttattttcat tagatctgtg tgttggtttt ttgtgtgcgt cgagatccac	3120
ggccgcagga acccctagtg atggagttgg ccactccctc tctgcgcgt cgctcgtca	3180
ctgaggccgg gcgaccaaag gtcgcccga gcccgggctt tgcccgggcg gcctcagtga	3240
gcgagcgagc gcgcagctgc ctgcaggggc gcctgatgcg gtattttctc cttacgcatc	3300
tgtgcggtat ttcacaccgc atacgtcaaa gcaaccatag tacgcgccct gtagcggcgc	3360
attaagcgcg gcgggtgtgg tggttacgcg cagcgtgacc gctacattg ccagcgccct	3420
agcgcccgt cttttcgctt tcttccctt ctttctcgcc acgttcgccg gctttccccg	3480
tcaagctcta aatcgggggc tccctttagg gttccgattt agtgctttac ggcacctga	3540
ccccaaaaa cttgatttgg gtgatggttc acgtagtggg ccatcgccct gatagacggt	3600
ttttcgccct ttgacgttgg agtccacgtt ctttaatagt ggactcttgt tccaaactgg	3660
aacaacactc aaccctatct cgggctattc ttttgattta taagggattt tgccgatttc	3720
ggcctattgg ttaaaaaatg agctgattta acaaaaattt aacgcgaatt ttaacaaaat	3780

attaacgttt acaattttat ggtgcactct cagtacaatc tgctctgatg ccgcatagtt	3840
aagccagccc cgacacccgc caacacccgc tgacgcgccc tgacgggctt gtctgctccc	3900
ggcatccgct tacagacaag ctgtgaccgt ctccgggagc tgcatgtgtc agaggttttc	3960
accgtcatca ccgaaacgcg cgagacgaaa gggcctcgtg atacgcctat ttttataggt	4020
taatgtcatg ataataatgg tttcttagac gtcagggtggc acttttcggg gaaatgtgcg	4080
cggaaccccct atttgtttat ttttctaaat acattcaaat atgtatccgc tcatgagaca	4140
ataaccctga taaatgcttc aataatattg aaaaaggaag agtatgagta ttcaacattt	4200
ccgtgtcgcc cttattccct tttttgcggc attttgcctt cctgtttttg ctcaccaga	4260
aacgctgggtg aaagtaaaag atgctgaaga tcagttgggt gcacgagtgg gttacatcga	4320
actggatctc aacagcggta agatccttga gagttttcgc cccgaagaac gttttccaat	4380
gatgagcact tttaaagttc tgctatgtgg cgcggtatta tcccgtattg acgccgggca	4440
agagcaactc ggtcgccgca tacactattc tcagaatgac ttggttgagt actcaccagt	4500
cacagaaaag catcttacgg atggcatgac agtaagagaa ttatgcagtg ctgccataac	4560
catgagtgat aacactgcgg ccaacttact tctgacaacg atcggaggac cgaaggagct	4620
aaccgctttt ttgcacaaca tgggggatca tgtaactcgc cttgatcggt gggaaccgga	4680
gctgaatgaa gccataccaa acgacgagcg tgacaccacg atgcctgtag caatggcaac	4740
aacgttgcg aaactattaa ctggcgaact acttactcta gcttcccggc aacaattaat	4800
agactggatg gaggcggata aagttgcagg accacttctg cgctcggccc ttccggctgg	4860
ctggtttatt gctgataaat ctggagccgg tgagcgtggg tctcgcggta tcattgcagc	4920
actggggcca gatggtaagc cctcccgtat cgtagttatc tacacgacgg ggagtcaggc	4980
aactatggat gaacgaaata gacagatcgc tgagataggt gcctcactga ttaagcattg	5040
gtaactgtca gaccaagttt actcatatat acttttagatt gatttaaaac ttcattttta	5100
atttaaaagg atctaggtga agatcctttt tgataatctc atgacaaaaa tcccttaacg	5160
tgagttttcg ttccactgag cgtcagaccc cgtagaaaag atcaaaggat cttcttgaga	5220
tccttttttt ctgcgcgtaa tctgctgctt gcaaacaaaa aaaccaccgc taccagcggt	5280

ggtttgtttg ccggatcaag agctaccaac tctttttccg aaggttaactg gcttcagcag	5340
agcgcagata ccaaatactg tccttctagt gtagccgtag ttaggccacc acttcaagaa	5400
ctctgtagca ccgcctacat acctcgctct gctaatacctg ttaccagtgg ctgctgccag	5460
tggcgataag tcgtgtctta ccgggttgga ctcaagacga tagttaccgg ataaggcgca	5520
gcggtcgggc tgaacggggg gttcgtgcac acagcccagc ttggagcgaa cgacctacac	5580
cgaactgaga tacctacagc gtgagctatg agaaagcgcc acgcttcccg aaggagaaaa	5640
ggcggacagg tatccggtaa gcggcagggt cggaacagga gagcgcacga gggagcttcc	5700
agggggaaac gcctggatatc tttatagtcc tgtcgggttt cgccacctct gacttgagcg	5760
tcgatttttg tgatgctcgt caggggggcg gagcctatgg aaaaacgcca gcaacgcggc	5820
ctttttacgg ttcctggcct tttgctggcc ttttgctcac atgt	5864

<210> 28

<211> 5823

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE04-CRE06-CSK-SH5-SPc5-12-MVM-hβ-SGco-pA

<400> 28

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcg c agagagggag	120
tggccaactc catcactagg ggttcctgcg gcccctttta gagaatccac acctgtccca	180
gttgctgggt tccactacca aaagtgaatt gcaactatct taggagcact taagcacatc	240
cgaaaaatga gtgattctgt tctggcccac accacatcac tgatgtaccc ctttaaagca	300
tgtccctgag ttcatcacag aagactgctc ctctgtgcc ctccacaagg ttagaactgt	360
ccttgctcta gggaaaaagg agagagagag agagagagag agagagagag agagagagag	420
agagagagag ggacaggcac caactgggta acctctgctg acccccactc tactttacca	480
taagtagctc caaatccttc tagaaaatct gaaaggcata gccccatata tcagtgatat	540
aaatagaacc tgcagcaggc tctggtaa at gatgactaca aggtggactg ggaggcagcc	600

cggccttggc aggcacatc ctctaaatat aaagatgagt ttgttcagcc tttgcagaag	660
gaggcgcgcc gtcgacggat ccggggccagg ggacgggtggc ttctacgtgc ttgggacgtt	720
cccagccacc gtcccatgtt cccggcgggg gccagctgt cccaccgcc agcccaactc	780
agcacttggg cagggtatca gcttggtggg ggggcgtgag cccagcccct ggggcggctc	840
agcccataca aggccatggg gctgggcgca aagcatgcct gggttcaggg tgggtatggg	900
gcgggagcag ggaggtgaga ggctcagctg ccctccagaa ctctccctg gggacaaccc	960
ctcccagcca atagcacagc ctaggtcccc ctatataagg ccacggctgc tggcccttcc	1020
tttgggtcag tgtcacctcc aggatacaga cagccccct tcagcccagc ccagccaggt	1080
acggatccgt cgacggcgcg ccacgcgtca gtttactcac cagggttca gaggcagcac	1140
tgctgaaccc tgagcccttg gcacatcagg ttggctgtca gaagtcggcc tttgtacata	1200
cacagttccc ttgtgaggcc cagctgcgtg tcctaggagc ggggcctctc tccacagcag	1260
agctcagcct ctcaagtgt tggacagcac gggcgcctga tgggtggatt tagccatgag	1320
ttgaaggtgg cttggggaga atgagagttc tagagatagg gagaaggggt tgccaatagg	1380
agagtggaat tcctgagcac ctctgcacag gcagccgaca gaacatgagc cgcagggccc	1440
aggctattta tacctgcct gtcactatca gggccccac agtcccccc acctccagcc	1500
acacacagca ggtccttttg ctctttcttg tcccttctct actcctccc ctccctacct	1560
aaggtaccca acgcgttacg tggccaccgc cttcggcacc atcctcacga cacccaaata	1620
tggcgacggg tgaggaatgg tggggagtta tttttagagc ggtgaggaag gtgggcaggc	1680
agcaggtgtt ggcgctctaa aaataactcc cgggagttat ttttagagcg gaggaatggg	1740
ggacacccaa atatggcgac ggttcctcac ccgtcgccat atttgggtgt ccgccctcgg	1800
ccggggccgc attcctgggg gccgggcggg gctcccgccc gcctcgataa aaggctccgg	1860
ggccggcggc ggcccacgag ctacccggag gagcgggagg cgccaagctc tagatctaga	1920
aagaggtgag ggtttaaggg atggttggtt ggtggggtat taatgtttta ttacctggag	1980
cacctgcctg aaatcacttt ttttcagggt ggaagcttgc caccatggct gctgccgctg	2040
ctgctgcagc tgaacagcaa tctagcaacg gccccgtgaa gaaatccatg cgcgagaagg	2100

ccgtcgagcg gagatctgtg aacaaagagc acaacagcaa cttcaaggcc ggctacatcc	2160
ccatcgacga ggacagactg cacaagacag gcctgagagg cagaaagggc aatctggcca	2220
tctgcgtgat catcctgctg ttcatcctgg ccgtgatcaa cctgatcatc accctggtca	2280
tctgggccgt gattagaatc ggccccaacg gctgcgacag catggaattt cacgagagcg	2340
gcctgctgcg gttcaaacag gtgtccgata tgggcgtgat ccatccactg tacaagagca	2400
ccgttggcgg cagaagaaac gagaatctgg tcatcaccgg caacaaccag cctatcgtgt	2460
ttcagcaggg caccaccaag ctgagcgtgg aaaacaacaa gaccagcatc accagcgaca	2520
tcggcatgca gttcttcgac ccagaaacac agaacatcct gttcagcacc gactacgaga	2580
cacacgagtt ccatctgcct agcggcgtga agtccctgaa tgtgcagaag gccagcaccg	2640
agagaatcac cagcaatgcc acctccgacc tgaacatcaa agtggacggc agagccatcg	2700
tgcggggaaa tgagggcgtg ttcatcatgg gcaagaccat cgagttccac atgggcggca	2760
acatggaact gaaggccgag aacagcatca tcctgaacgg cagcgtgatg gtgtccacca	2820
caagactgcc aagcagcagc tctggcgatc agcttggatc tggcgactgg gtccgataca	2880
agctgtgtat gtgtgccgac ggcaccctgt tcaaggtgca agtgacaagc cagaacatgg	2940
gctgccagat cagcgacaac ccttgcggca ataccactg attcgaaacg tcacgtccat	3000
cttgagcatc tgacttctgg ctaaataaaa gatctttatt ttcattagat ctgtgtgttg	3060
gttttttgtg tgcgtcgaga tccacggccg caggaacccc tagtgatgga gttggccact	3120
ccctctctgc gcgctcgctc gctcactgag gccgggcgac caaaggctgc cgcacgcccg	3180
ggctttgccc gggcggcctc agtgagcgag cgagcgcgca gctgcctgca ggggcgcctg	3240
atgcggtatt ttctccttac gcatctgtgc ggtatttcac accgcatacg tcaaagcaac	3300
catagtacgc gccctgtagc ggcgcattaa gcgcggcggg tgtggtggtt acgcgcagcg	3360
tgaccgctac acttgccagc gccctagcgc ccgctccttt cgctttcttc ctttcctttc	3420
tcgccacgtt cgccggcttt ccccgtaag ctctaaatcg ggggctccct ttagggttcc	3480
gatttagtgc ttacggcac ctcgaccca aaaaacttga tttgggtgat ggttcacgta	3540
gtgggccatc gccctgatag acggtttttc gccctttgac gttggagtcc acgttcttta	3600

atagtggact cttgttccaa actggaacaa cactcaaccc tatctcgggc tattcttttg	3660
atttataagg gattttgccg atttcggcct attgggttaa aaatgagctg atttaacaaa	3720
aatttaacgc gaattttaac aaaatattaa cgtttacaat tttatggtgc actctcagta	3780
caatctgctc tgatgccga tagttaagcc agccccgaca cccgccaaca cccgctgacg	3840
cgccctgacg ggcttgtctg ctcccggcat ccgcttacag acaagctgtg accgtctccg	3900
ggagctgcat gtgtcagagg ttttcaccgt catcaccgaa acgcgcgaga cgaaagggcc	3960
tcgtgatacg cctattttta taggttaatg tcatgataat aatggtttct tagacgtcag	4020
gtggcacttt tcggggaaat gtgcgcggaa cccctatttg tttatttttc taaatacatt	4080
caaatatgta tccgctcatg agacaataac cctgataaat gcttcaataa tattgaaaaa	4140
ggaagagtat gagtattcaa catttcctgt tcgcccttat tccctttttt gcggcatttt	4200
gccttcctgt ttttgctcac ccagaaacgc tggtgaaagt aaaagatgct gaagatcagt	4260
tgggtgcacg agtgggttac atcgaactgg atctcaacag cggttaagatc cttgagagtt	4320
ttcgccccga agaacgtttt ccaatgatga gcacttttaa agttctgcta tgtggcgcgg	4380
tattatcccc tattgacgcc gggcaagagc aactcggtcg ccgcatacac tattctcaga	4440
atgacttggg tgagtactca ccagtcacag aaaagcatct tacggatggc atgacagtaa	4500
gagaattatg cagtgtgcc ataaccatga gtgataacac tgcggccaac ttactttctga	4560
caacgatcgg aggaccgaag gagctaaccg cttttttgca caacatgggg gatcatgtaa	4620
ctcgccttga tcgttgggaa ccggagctga atgaagccat accaaacgac gagcgtgaca	4680
ccacgatgcc ttagcaatg gcaacaacgt tgcgcaaact attaactggc gaactactta	4740
ctctagcttc ccggcaacaa ttaatagact ggatggaggc ggataaagtt gcaggaccac	4800
ttctgcgctc ggcccttccg gctggctggg ttattgctga taaatctgga gccggtgagc	4860
gtgggtctcg cggtatcatt gcagcactgg ggccagatgg taagccctcc cgtatcgtag	4920
ttatctacac gacggggagt caggcaacta tggatgaacg aaatagacag atcgctgaga	4980
taggtgcctc actgattaag cattggtaac tgtcagacca agtttactca tatatacttt	5040
agattgattt aaaacttcat ttttaattta aaaggatcta ggtgaagatc ctttttgata	5100

atctcatgac caaaatccct taacgtgagt tttcgttcca ctgagcgtca gaccccgtag	5160
aaaagatcaa aggatcttct tgagatcctt tttttctgcg cgtaatctgc tgcttgcaaa	5220
caaaaaaacc accgctacca gcggtggttt gtttgccgga tcaagagcta ccaactcttt	5280
ttccgaaggt aactggcttc agcagagcgc agataccaaa tactgtcctt ctagtgtagc	5340
cgtagttagg ccaccacttc aagaactctg tagcaccgcc tacatacctc gctctgctaa	5400
tcctgttacc agtggctgct gccagtggcg ataagtcgtg tcttaccggg ttggactcaa	5460
gacgatagtt accggataag gcgcagcggc cgggctgaac ggggggttcg tgcacacagc	5520
ccagcttggg gcgaacgacc tacaccgaac tgagatacct acagcgtgag ctatgagaaa	5580
gcgccacgct tcccgaaggg agaaaggcgg acaggtatcc ggtaagcggc agggtcggaa	5640
caggagagcg cacgaggagg cttccagggg gaaacgcctg gtatctttat agtcctgtcg	5700
ggtttcgcca cctctgactt gagcgtcgat ttttgtgatg ctcgtcaggg gggcggagcc	5760
tatggaaaaa cgccagcaac gcggcctttt tacggttcct ggccttttgc tggccttttg	5820
ctc	5823

<210> 29
 <211> 5823
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> AAV-CRE04-CRE06-CSK-SH5-SPc5-12-MVM-hß-SG-pA

<400> 29	
acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcgc agagagggag	120
tggccaactc catcactagg ggttcctgcg gcccctttta gagaatccac acctgtccca	180
gttgctgggt tccactacca aaagtgaatt gcaactatct taggagcact taagcacatc	240
cgaaaaatga gtgattctgt tctggcccac accacatcac tgatgtaccc ctttaaagca	300
tgtccctgag ttcatcacag aagactgctc ctcctgtgcc ctccacaagg ttagaactgt	360
ccttgtctta gggaaaaagg agagagagag agagagagag agagagagag agagagagag	420

agagagagag ggacaggcac caactgggta acctctgctg acccccactc tactttacca	480
taagtagctc caaatccttc tagaaaatct gaaaggcata gccccatata tcagtgatat	540
aaatagaacc tgcagcaggc tctggtaaata gatgactaca aggtggactg ggaggcagcc	600
cggccttggc aggcatcatc ctctaaatat aaagatgagt ttgttcagcc tttgcagaag	660
gaggcgcgcc gtcgacggat ccgggccagg ggacgggtggc ttctacgtgc ttgggacgtt	720
cccagccacc gtcccatgtt cccggcgggg ggccagctgt cccaccgcc agcccaactc	780
agcacttggc cagggtatca gcttgggtggg ggggcgtgag cccagcccct ggggcggctc	840
agcccataca aggccatggg gctgggcgca aagcatgcct gggttcaggg tgggtatggt	900
gcgggagcag ggaggtgaga ggctcagctg ccctccagaa ctctccctg gggacaacct	960
ctcccagcca atagcacagc ctaggtcccc ctatataagg ccacggctgc tggcccttcc	1020
tttgggtcag tgtcacctcc aggatacaga cagccccct tcagcccagc ccagccaggt	1080
acggatccgt cgacggcgcg ccacgcgtca gtttactcac cagggttca gaggcagcac	1140
tgctgaacct tgagcccttg gcacatcagg ttggctgtca gaagtcggcc tttgtacata	1200
cacagtcccc ttgtgaggcc cagctgcgtg tcctaggagc ggggcctctc tccacagcag	1260
agctcagcct ctcaagtgtg tggacagcac gggtgcctga tgggtggatt tagccatgag	1320
ttgaagggtg cttggggaga atgagagttc tagagatagg gagaaggggt tgccaatagg	1380
agagtggaat tcctgagcac ctctgtcacag gcagccgaca gaacatgagc cgcaggggcc	1440
aggctattta tacctgcct gtcactatca gggtccccac agctcccccc acctccagcc	1500
acacacagca ggtccttttg ctctttcttg tcccttctct actcctcccc ctccctacct	1560
aaggtaccca acgcgttacg tggccaccgc cttcggcacc atcctcacga caccxaaata	1620
tggcgacggg tgaggaatgg tggggagtta ttttagagc ggtgaggaag gtgggcaggc	1680
agcagggtgt ggcgctctaa aaataactcc cgggagttat ttttagagcg gaggaatggt	1740
ggacacccaa atatggcgac ggttcctcac ccgtcgccat atttgggtgt ccgccctcgg	1800
ccggggccgc attcctgggg gccgggcggg gctcccgccc gcctcgataa aaggctccgg	1860
ggccggcggc ggccacagag ctaccggag gagcgggagg cgccaagctc tagatctaga	1920

aagaggtaag ggtttaaggg atggttggtt ggtgggggtat taatgtttaa ttacctggag	1980
cacctgcctg aaatcacttt ttttcaggtt ggaagcttgc caccatggcg gcagcggcgg	2040
cggcggctgc agaacagcaa agttccaatg gtcctgtaaa gaagtccatg cgtgagaagg	2100
ctgttgagag aaggagtgtc aataaagagc acaacagtaa ctttaaagct ggatacattc	2160
cgattgatga agatcgtctc cacaaaacag ggttgagagg aagaaagggc aatttagcca	2220
tctgtgtgat tatcctcttg tttatcctgg ctgtcatcaa ttttaataata acacttgтта	2280
tttgggccgt gattcgcatt ggaccaaattg gctgtgatag tatggagttt catgaaagtг	2340
gcctgcttcg atttaagcaa gtatctgaca tgggagtgat ccaccctctt tataaaagca	2400
cagtaggagg aaggcgaaat gaaaatttgg tcatcactgg caacaaccag cctattgttt	2460
ttcagcaagg gacaacaaag ctcagtgtag aaaacaacaa aacttctatt acaagtгaca	2520
tcggcatgca gttttttgac ccgaggactc aaaatatctt attcagcaca gactatgaaa	2580
ctcatgagtt tcatttgcca agtggagtga aaagtttgaa tgttcaaaag gcatctactg	2640
aaaggattac cagcaatgct accagtгatt taaatataaa agttgatggg cgtgctattg	2700
tgcgtggaaa tgaagggtga ttсattatgg gcaaaaccat tgaatttcac atgggtggta	2760
atatggagtt aaaggcgгaa aacagtatca tcctaaatgg atctgtgatg gtcagcacca	2820
cccgctacc cagttcctcc agtggagacc agttgggtag tggtgactgg gtacgctaca	2880
agctctgcat gtgtgctgat gggacgctct tcaagggtgca agtaaccagc cagaacatgg	2940
gctgccaaat ctсagacaac ccctgtggaa acactcatta attcgaaacg tcacgtccat	3000
cttgagcatc tgacttctgg ctaaataaaa gatctttatt ttсattagat ctgtgtgttg	3060
gtttttttgtg tgcgtcgaga tccacggccg caggaacccc tagtgatgga gttggccact	3120
ccctctctgc gcgctcgctc gtcactgag gccgggcgac caaaggtcgc ccgacgcccг	3180
ggctttgccc gggcggcctc agtgagcgag cgagcgcgca gctgcctgca ggggcgcctg	3240
atgcgggtatt ttctccttac gcatctgtgc ggtatttcac accgcatacg tcaaagcaac	3300
catagtacgc gccctgtagc ggcgсattaa gcgcggcggg tgtggtggtt acgcgcagcg	3360
tgaccgctac acttgccagc gccctagcgc ccgctccttt cgctttcttc ccttcctttc	3420

tcgccacgtt cgccggcttt ccccgctcaag ctctaaatcg ggggctccct ttagggttcc	3480
gatttagtgc tttacggcac ctcgaccca aaaaacttga tttgggtgat ggttcacgta	3540
gtgggccatc gccctgatag acggtttttc gccctttgac gttggagtcc acgttcttta	3600
atagtggact cttgttccaa actggaacaa cactcaacc tatctcgggc tattcttttg	3660
atttataagg gattttgccg atttcggcct attggttaaa aaatgagctg atttaacaaa	3720
aatttaacgc gaattttaac aaaatattaa cgtttacaat tttatggtgc actctcagta	3780
caatctgctc tgatgccga tagttaagcc agccccgaca cccgccaaca cccgctgacg	3840
cgccctgacg ggcttgtctg ctcccggcat ccgcttacag acaagctgtg accgtctccg	3900
ggagctgcat gtgtcagagg ttttcaccgt catcaccgaa acgcgcgaga cgaaagggcc	3960
tcgtgatacg cctattttta taggttaatg tcatgataat aatggtttct tagacgtcag	4020
gtggcacttt tcggggaaat gtgcgcggaa cccctatttg tttatttttc taaatacatt	4080
caaatatgta tccgctcatg agacaataac cctgataaat gcttcaataa tattgaaaaa	4140
ggaagagtat gagtattcaa catttccgtg tcgcccttat tccctttttt gcggcatttt	4200
gccttcctgt ttttgctcac ccagaaacgc tggtgaaagt aaaagatgct gaagatcagt	4260
tgggtgcacg agtgggttac atcgaactgg atctcaacag cggttaagatc cttgagagtt	4320
ttcgccccga agaacgtttt ccaatgatga gcacttttaa agttctgcta tgtggcgcgg	4380
tattatccccg tattgacgcc gggcaagagc aactcggtcg ccgcatacac tattctcaga	4440
atgacttggg tgagtactca ccagtcacag aaaagcatct tacggatggc atgacagtaa	4500
gagaattatg cagtgtgcc ataaccatga gtgataacac tgcggccaac ttacttctga	4560
caacgatcgg aggaccgaag gagctaaccg cttttttgca caacatgggg gatcatgtaa	4620
ctcgccttga tcgttgggaa ccggagctga atgaagccat accaaacgac gagcgtgaca	4680
ccacgatgcc tgtagcaatg gcaacaacgt tgcgcaaact attaactggc gaactactta	4740
ctctagcttc ccggcaacaa ttaatagact ggatggaggc ggataaagtt gcaggaccac	4800
ttctgcgctc ggcccttccg gctggctggg ttattgctga taaatctgga gccggtgagc	4860
gtgggtctcg cggtatcatt gcagcactgg ggccagatgg taagccctcc cgtatcgtag	4920

ttatctacac gacggggagt caggcaacta tggatgaacg aaatagacag atcgctgaga	4980
taggtgcctc actgattaag cattggtaac tgtcagacca agtttactca tatatacttt	5040
agattgattt aaaacttcat ttttaattta aaaggatcta ggtgaagatc ctttttgata	5100
atctcatgac caaaatccct taacgtgagt tttcgttcca ctgagcgtca gaccccgtag	5160
aaaagatcaa aggatcttct tgagatcctt tttttctgcg cgtaatctgc tgcttgcaaa	5220
caaaaaaacc accgctacca gcggtgggtt gtttgccgga tcaagagcta ccaactcttt	5280
ttccgaaggt aactggcttc agcagagcgc agatacaaaa tactgtcctt ctagtgtagc	5340
cgtagttagg ccaccacttc aagaactctg tagcaccgcc tacatacctc gctctgctaa	5400
tcctgttacc agtggctgct gccagtggcg ataagtcgtg tcttaccggg ttggactcaa	5460
gacgatagtt accggataag gcgcagcggc cgggctgaac ggggggttcg tgcacacagc	5520
ccagcttgga gcgaacgacc tacaccgaac tgagatacct acagcgtgag ctatgagaaa	5580
gcgccacgct tcccgaaggg agaaaggcgg acaggtatcc ggtaagcggc agggtcggaa	5640
caggagagcg cacgagggag cttccagggg gaaacgcctg gtatctttat agtcctgtcg	5700
ggtttcgcca cctctgactt gagcgtcgat ttttgtgatg ctcgtcaggg gggcggagcc	5760
tatggaaaaa cgccagcaac gcggcctttt tacggttcct ggccttttgc tggccttttg	5820
ctc	5823

<210> 30
 <211> 5812
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> AAV-CRE06-CRE04-CSK-SH5-SPc5-12-MVM-hß-SGco-pA

<400> 30	
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgccccg cctcagttag cgagcgagcg cgcagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgggc caggggacgg tggcttctac gtgcttgga cgttcccagc	180
caccgtccca tgttcccggc ggggggcccag ctgtccccac cgccagccca actcagcact	240

tggtcagggt atcagcttgg tgggggggcg tgagcccagc ccctggggcg gctcagccca	300
tacaaggcca tggggctggg cgcaaagcat gcctgggttc aggggtgggta tggtgcggga	360
gcagggaggt gagaggctca gctgccctcc agaactcctc cctggggaca acccctccca	420
gccaatagca cagcctaggt ccccctatat aaggccacgg ctgctggccc ttcctttggg	480
tcagtgtcac ctccaggata cagacagccc cccttcagcc cagcccagcc aggtacggcg	540
cgccgtcgac ggatcccctt ttagagaatc cacacctgtc ccagttgctg ggttccacta	600
ccaaaagtga attgcaacta ttttaggagc acttaagcac atccgaaaaa tgagtgattc	660
tgttctggcc cacaccacat cactgatgta cccccttaaa gcatgtccct gagttcatca	720
cagaagactg ctctcctgt gccctccaca aggttagaac tgtccttgct ttagggaaaa	780
aggagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagggacagg	840
caccaactgg gtaacctctg ctgaccccca ctctacttta ccataagtag ctccaaatcc	900
ttctagaaaa tctgaaaggc atagcccat atatcagtga tataaataga acctgcagca	960
ggctctggta aatgatgact acaaggtgga ctgggaggca gcccggcctt ggcaggcatc	1020
atcctctaaa tataaagatg agtttgttca gcctttgcag aaggaggatc cgtcgacggc	1080
gcgccacgcg tcagtttact caccagggat tcagaggcag cactgctgaa ccctgagccc	1140
ttggcacatc aggttggctg tcagaagtcg gcctttgtac atacacagtt cccttgtgag	1200
gcccagctgc gtgtcctagg agcggggcct ctctccacag cagagctcag cctctcaagt	1260
gtatggacag cacgggtgcc tgatgggtgg atttagccat gagttgaagg tggcttgggg	1320
agaatgagag ttctagagat agggagaagg ggttgccaat aggagagtgg aattcctgag	1380
cacctcgtca caggcagccg acagaacatg agccgcaggg cccaggctat ttatacctcg	1440
cctgtcacta tcagggtccc cacagctccc cccacctcca gccacacaca gcaggtcctt	1500
ttgctctttc tgggtccctt tctactcctc cccctcccta cctaaggtac ccaacgcgtt	1560
acgtggccac cgccttcggc accatcctca cgacacccaa atatggcgac gggtagaggaa	1620
tggtggggag ttatTTTTtag agcgggtgagg aagggtgggca ggcagcaggt gttggcgctc	1680
taaaaataac tcccgggagt tatTTTTaga gcggaggaat ggtggacacc caaatatggc	1740

gacggttcct caccgcgc catatttggg tgtccgccct cggccggggc cgcattcctg	1800
ggggccgggc ggtgctccc cccgcctcga taaaaggctc cggggccggc ggcggcccac	1860
gagctacccg gaggagcggg aggcgccaag ctctagatct agaaagaggt aagggtttaa	1920
gggatgggtg gttggtgggg tattaatgtt taattacctg gagcacctgc ctgaaatcac	1980
tttttttcag gttggaagct tgccaccatg gctgctgccg ctgctgctgc agctgaacag	2040
caatctagca acggccccgt gaagaaatcc atgcgcgaga aggccgtcga gcggagatct	2100
gtgaacaaag agcacaacag caacttcaag gccggctaca tccccatcga cgaggacaga	2160
ctgcacaaga caggcctgag aggcagaaaag ggcaatctgg ccatctgcgt gatcatcctg	2220
ctgttcatcc tggccgtgat caacctgatc atcaccctgg tcatctgggc cgtgattaga	2280
atcggcccca acggctgcga cagcatggaa ttccacgaga gcggcctgct gcggttcaaa	2340
cagggtgtccg atatgggcgt gatccatcca ctgtacaaga gcaccgttgg cggcagaaga	2400
aacgagaatc tggatcatcac cggcaacaac cagcctatcg tgtttcagca gggcaccacc	2460
aagctgagcg tggaaaacaa caagaccagc atcaccagcg acatcggcat gcagttcttc	2520
gacccagaa cacagaacat cctgttcagc accgactacg agacacacga gttccatctg	2580
cctagcggcg tgaagtccct gaatgtgcag aaggccagca ccgagagaat caccagcaat	2640
gccacctccg acctgaacat caaagtggac ggcagagcca tcgtgcgggg aaatgagggc	2700
gtgttcatca tgggcaagac catcgagttc cacatgggcg gcaacatgga actgaaggcc	2760
gagaacagca tcatcctgaa cggcagcgtg atgggtgtcca ccacaagact gccaaagcagc	2820
agctctggcg atcagcttgg atctggcgac tgggtccgat acaagctgtg tatgtgtgcc	2880
gacggcacc tgttcaaggt gcaagtgaca agccagaaca tgggctgcca gatcagcgac	2940
aaccttgcg gcaataccca ctgattcgaa acgtctagtc catcttgagc atctgacttc	3000
tggctaaata aaagatcttt attttcatta gatctgtgtg ttggtttttt gtgtgcgtcg	3060
agatccacgg ccgcaggaac ccctagtgat ggagttggcc actccctctc tgcgcgctcg	3120
ctcgtcact gaggccgggc gaccaaaggt cgcccacgc ccgggctttg cccgggcggc	3180
ctcagtgagc gagcgagcgc gcagctgcct gcaggggcgc ctgatgcggt attttctcct	3240

tacgcatctg tgcggtat	ttt cacaccgcat acgtcaaagc aaccatagta cgcgccctgt	3300
agcggcgcat taagcgcggc	gggtgtggtg gttacgcgca gcgtgaccgc tacacttgcc	3360
agcgccctag cgcccgtcc	tttcgctttc ttcccttcct ttctcgccac gttcgccggc	3420
tttccccgtc aagctctaaa	tcggggggctc ctttaggggt tccgatttag tgctttacgg	3480
cacctcgacc ccaaaaaact	tgatttgggt gatggttcac gtagtgggcc atcgccctga	3540
tagacggttt ttcgcccttt	gacgttggag tccacgttct ttaatagtgg actcttgttc	3600
caaaactggaa caaactcaa	ccctatctcg ggctattctt ttgatttata agggattttg	3660
ccgatttcgg cctattgggt	aaaaaatgag ctgatttaac aaaaatttaa cgcgaatttt	3720
aacaaaatat taacgtttac	aattttatgg tgcactctca gtacaatctg ctctgatgcc	3780
gcatagttaa gccagccccg	acacccgcca acacccgctg acgcgccctg acgggcttgt	3840
ctgctcccgg catccgctta	cagacaagct gtgaccgtct ccgggagctg catgtgtcag	3900
aggttttcac cgtcatcacc	gaaacgcgcg agacgaaagg gcctcgtgat acgcctat	3960
ttataggtta atgtcatgat	aataatgggt tcttagacgt caggtggcac ttttcgggga	4020
aatgtgcgcg gaacccttat	ttgtttat	4080
atgagacaat aaccctgata	aatgcttcaa taatattgaa aaaggaagag tatgagtatt	4140
caacatttcc gtgtcgccct	tattcccttt tttgcggcat tttgccttcc tgtttttgct	4200
cacccagaaa cgctggtgaa	agtaaaagat gctgaagatc agttgggtgc acgagtgggt	4260
tacatcgaac tggatctcaa	cagcggtaag atccttgaga gttttcgccc cgaagaacgt	4320
tttccaatga tgagcacttt	taaagttctg ctatgtggcg cggattatc ccgtattgac	4380
gccgggcaag agcaactcgg	tcgccgcata cactattctc agaatgactt gggttgagtac	4440
tcaccagtca cagaaaagca	tcttacggat ggcatgacag taagagaatt atgcagtgct	4500
gccataacca tgagtataa	cactgcggcc aacttacttc tgacaacgat cggaggaccg	4560
aaggagctaa ccgctttttt	gcacaacatg ggggatcatg taactcgcct tgatcgttgg	4620
gaaccgggagc tgaatgaagc	cataccaaac gacgagcgtg acaccacgat gcctgtagca	4680
atggcaacaa cgttgcgcaa	actattaact ggcgaactac ttactctagc ttcccggcaa	4740

caattaatag actggatgga ggcggataaa gttgcaggac cacttctgcg ctcggccctt	4800
ccggctggct ggtttattgc tgataaatct ggagccgggtg agcgtgggtc tcgcggtatc	4860
attgcagcac tggggccaga tggtaagccc tcccgtatcg tagttatcta cacgacgggg	4920
agtcaggcaa ctatggatga acgaaataga cagatcgctg agataggtgc ctactgatt	4980
aagcattggt aactgtcaga ccaagtttac tcatatatac tttagattga tttaaaactt	5040
catttttaat ttaaaaggat ctaggtgaag atcctttttg ataatctcat gaccaaatac	5100
ccttaacgtg agttttcgtt ccactgagcg tcagaccccg tagaaaagat caaaggatct	5160
tcttgagatc ctttttttct gcgcgtaatc tgctgcttgc aaacaaaaaa accaccgcta	5220
ccagcgggtg tttgtttgcc ggatcaagag ctaccaactc tttttccgaa ggtaactggc	5280
ttcagcagag cgcagatacc aaatactgtc cttctagtgt agccgtagt aggccaccac	5340
ttcaagaact ctgtagcacc gcctacatac ctcgctctgc taatcctgtt accagtggct	5400
gctgccagt gcgataagtc gtgtcttacc gggttggact caagacgata gttaccggat	5460
aaggcgcagc ggtcgggctg aacgggggggt tcgtgcacac agcccagctt ggagcgaacg	5520
acctacaccg aactgagata cctacagcgt gagctatgag aaagcgccac gcttcccga	5580
gggagaaaagg cggacaggt tccggtaagc ggcagggtcg gaacaggaga gcgcacgagg	5640
gagcttccag ggggaaacgc ctggtatctt tatagtcctg tcgggtttcg ccacctctga	5700
cttgagcgtc gatTTTTgtg atgctcgtca ggggggcgga gcctatggaa aaacgccagc	5760
aacgcggcct ttttacggtt cctggccttt tgctggcctt ttgctcacat gt	5812

<210> 31

<211> 5812

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE06-CRE04-CSK-SH5-SPc5-12-MVM-hβ-SG-pA

<400> 31

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgacctt	60
--	----

ggtcgcccgg cctcagtgag cgagcgagcg cgcagagagg gaggggccaa ctccatcact	120
---	-----

aggggttcct gcggccgggc caggggacgg tggcttctac gtgcttggga cgttcccagc	180
caccgtccca tgttcccggc ggggggcccag ctgtccccac cgccagccca actcagcact	240
tggtcagggt atcagcttgg tgggggggcg tgagcccagc ccctggggcg gctcagccca	300
tacaaggcca tggggctggg cgcaaagcat gcctgggttc aggggtgggta tggcgcggga	360
gcagggaggt gagaggctca gctgccctcc agaactcctc cctggggaca acccctccca	420
gccaatagca cagcctaggt ccccctatat aaggccacgg ctgctggccc ttcctttggg	480
tcagtgtcac ctccaggata cagacagccc cccttcagcc cagcccagcc aggtacggcg	540
cgccgtcgac ggatccccctt ttagagaatc cacacctgtc ccagttgctg ggttccacta	600
ccaaaagtga attgcaacta ttttaggagc acttaagcac atccgaaaaa tgagtgattc	660
tgttctggcc cacaccacat cactgatgta cccccttaaa gcatgtccct gagttcatca	720
cagaagactg ctctcctgt gccctccaca aggttagaac tgtccttgct ttagggaaaa	780
aggagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagggacagg	840
caccaactgg gtaacctctg ctgaccccca ctctacttta ccataagtag ctccaaatcc	900
ttctagaaaa tctgaaaggc atagcccat atatcagtga tataaataga acctgcagca	960
ggctctggta aatgatgact acaagggtga ctgggaggca gcccgccctt ggcaggcatc	1020
atcctctaaa tataaagatg agtttgttca gcctttgcag aaggaggatc cgtcgacggc	1080
gcgccacgcg tcagtttact caccagggat tcagaggcag cactgctgaa ccctgagccc	1140
ttggcacatc aggttggctg tcagaagtcg gcctttgtac atacacagtt cccttgtgag	1200
gcccagctgc gtgtcctagg agcggggcct ctctccacag cagagctcag cctctcaagt	1260
gtatggacag cacgggtgcc tgatgggtgg atttagccat gagttgaagg tggcttgggg	1320
agaatgagag ttctagagat agggagaagg ggttgccaat aggagagtgg aattcctgag	1380
cacctgtca caggcagccg acagaacatg agccgcaggg cccaggctat ttatacctcg	1440
cctgtcacta tcagggtccc cacagctccc cccacctcca gccacacaca gcaggtcctt	1500
ttgctctttc tggctccctc tctactcctc cccctcccta cctaaggtag ccaacgcgtt	1560
acgtggccac cgccttcggc accatcctca cgacacccaa atatggcgac gggtgaggaa	1620

tggtggggag ttatTTTTtag agcggTgagg aaggtgggca ggcagcaggt gttggcgctc	1680
taaaaataac tcccgggagt tatTTTTaga gcggaggaat ggtggacacc caaatatggc	1740
gacggttcct caccgcTgc catatTTggg tgtccgcctt cggccggggc cgcattcctg	1800
ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc ggcggccac	1860
gagctacccg gaggagcggg aggcgccaag ctctagatct agaaagaggt aagggtttaa	1920
gggatggttg gttggtgggg tattaatgtt taattacctg gagcacctgc ctgaaatcac	1980
TTTTTTTcag gttggaagct tgccaccatg gcggcagcgg cggcggcggc tgcagaacag	2040
caaagtcca atggtcctgt aaagaagtcc atgcgtgaga aggctgttga gagaaggagt	2100
gtcaataaag agcacaacag taactTTaaa gctggataca ttccgattga tgaagatcgt	2160
ctccacaaaa cagggttgag aggaagaaag ggcaatttag ccatctgtgt gattatcctc	2220
ttgtttatcc tggctgtcat caatttaata ataacacttg ttatTTgggc cgtgattcgc	2280
attggaccaa atggctgtga tagtatggag tttcatgaaa gtggcctgct tcgatttaag	2340
caagtatctg acatgggagt gatccaccct ctttataaaa gcacagtagg aggaaggcga	2400
aatgaaaatt tggTcatcac tggcaacaac cagcctattg tttttcagca agggacaaca	2460
aagctcagtg tagaaaacaa caaaacttct attacaagtg acatcggcat gcagTTTTT	2520
gacccgagga ctcaaaatat cttattcagc acagactatg aaactcatga gtttcatttg	2580
ccaagtggag tgaaaagttt gaatgttcaa aaggcatcta ctgaaaggat taccagcaat	2640
gctaccagtg atttaaatat aaaagttgat gggcgtgcta ttgtgcgtgg aaatgaaggt	2700
gtattcatta tgggcaaaac cattgaattt cacatgggtg gtaatatgga gttaaaggcg	2760
gaaaacagta tcatcctaaa tggatctgtg atggTcagca ccacccgcct acccagttcc	2820
tccagtggag accagtTggg tagtggtgac tgggtacgct acaagctctg catgtgtgct	2880
gatgggacgc tcttcaaggt gcaagtaacc agccagaaca tgggctgcc aatctcagac	2940
aaccctgtg gaaacactca ttaattcgaa acgtctagtc catcttgagc atctgacttc	3000
tggctaaata aaagatcttt attttcatta gatctgtgtg ttggTTTTT gtgtgcgtcg	3060
agatccacgg ccgcaggaac ccctagtgat ggagttggcc actccctctc tgcgcgctcg	3120

ctcgctcact gaggccgggc gaccaaaggt cgcccgcgc ccgggctttg cccgggcggc	3180
ctcagtgagc gagcgagcgc gcagctgcct gcaggggcgc ctgatgcggt attttctcct	3240
tacgcatctg tgcggtattht cacaccgcat acgtcaaagc aaccatagta cgcgccctgt	3300
agcggcgcgc taagcgcggc ggggtgtggg gttacgcgca gcgtgaccgc tacacttgcc	3360
agcgccctag cgcccgtcc tttcgctttc ttcccttctt ttctcgccac gttcgccggc	3420
tttccccgtc aagctctaaa tcggggggtc cttttagggt tccgatttag tgctttacgg	3480
cacctcgacc ccaaaaaact tgatttgggt gatggttcac gtagtgggcc atcgccctga	3540
tagacggtht ttcgcccttht gacgttggag tccacgttct ttaatagtgg actcttgtht	3600
caaaactggaa caaacactcaa ccctatctcg ggctattctt ttgatttata agggatttht	3660
ccgatttcgg cctattgggt aaaaaatgag ctgatttaac aaaaatttaa cgcgaatttht	3720
aacaaaatat taacgttht aattthtatgg tgcactctca gtacaatctg ctctgatgcc	3780
gcatagttaa gccagccccg acaccgccca acaccgctg acgcgccctg acgggcttgt	3840
ctgctcccgg catccgctta cagacaagct gtgaccgtct ccgggagctg catgtgtcag	3900
aggthttcac cgtcatcacc gaaacgcgcg agacgaaagg gcctcgtgat acgcctattht	3960
ttataggtht atgtcatgat aataatgggt tcttagacgt cagggtggcac ttttcgggga	4020
aatgtgcgcg gaacccttat ttgtthattt ttctaaatac attcaaatat gtatccgctc	4080
atgagacaat aaccctgata aatgcttcaa taatattgaa aaaggaagag tatgagtatt	4140
caacatttht gtgtcgccct tattcccttht tttgcggcat tttgccttht tgthtttgct	4200
caccagaaa cgctggtgaa agtaaaagat gctgaagatc agttgggtgc acgagtgggt	4260
tacatcgaac tggatctcaa cagcggtaag atccttgaga gthttcgccc cgaagaacgt	4320
thtccaatga tgagcacttht taaagttht ctatgtggcg cggthattatc ccgtattgac	4380
gccgggcaag agcaactcgg tcgccgcata cactattctc agaatgactt ggttgagtac	4440
tcaccagtca cagaaaagca tcttacggat ggcatgacag taagagaatt atgcagtgtc	4500
gccataacca tgagtataa cactgcggcc aacttacttht tgacaacgat cggaggaccg	4560
aaggagctaa ccgctthttt gcacaacatg ggggatcatg taactcgcct tgatcgttgg	4620

gaaccggagc tgaatgaagc cataccaaac gacgagcgtg acaccacgat gcctgtagca	4680
atggcaacaa cgttgcgcaa actattaact ggcgaactac ttactctagc ttcccggcaa	4740
caattaatag actggatgga ggcggataaa gttgcaggac cacttctgcg ctcgccctt	4800
ccggctggct ggtttattgc tgataaatct ggagccggtg agcgtgggtc tcgcggtatc	4860
attgcagcac tggggccaga tggtaagccc tcccgtatcg tagttatcta cacgacgggg	4920
agtcaggcaa ctatggatga acgaaataga cagatcgctg agataggtgc ctactgatt	4980
aagcattggt aactgtcaga ccaagtttac tcatatatac tttagattga tttaaaactt	5040
catttttaat ttaaaaggat ctaggtgaag atcctttttg ataatctcat gaccaaatac	5100
ccttaacgtg agttttcgtt ccactgagcg tcagaccccg tagaaaagat caaaggatct	5160
tcttgagatc ctttttttct gcgcgtaatc tgctgcttgc aaacaaaaaa accaccgcta	5220
ccagcgggtg tttgtttgcc ggatcaagag ctaccaactc tttttccgaa ggtaactggc	5280
ttcagcagag cgcagatacc aaatactgtc cttctagtgt agccgtagt t aggccaccac	5340
ttcaagaact ctgtagcacc gcctacatac ctgctctgc taatcctgtt accagtggct	5400
gctgccagtg gcgataagtc gtgtcttacc gggttggact caagacgata gttaccggat	5460
aaggcgcagc ggtcgggctg aacgggggggt tcgtgcacac agcccagctt ggagcgaacg	5520
acctacaccg aactgagata cctacagcgt gagctatgag aaagcgccac gcttcccga	5580
gggagaaaagg cggacaggta tccggtaagc ggcagggtcg gaacaggaga gcgcacgagg	5640
gagcttccag ggggaaacgc ctggtatctt tatagtcctg tcgggtttcg ccacctctga	5700
cttgagcgtc gatTTTTgtg atgctcgtca ggggggcgga gcctatggaa aaacgccagc	5760
aacgcggcct ttttacgggt cctggcctt tgctggcctt ttgctcacat gt	5812

<210> 32

<211> 5755

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE02-CRE06-CSK-SH5-SPc5-12-MVM-hß-SGco-pA

<400> 32

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgccccgg cctcagttag cgagcgagcg cgcagagagg gaggggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcgggtt ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgaccctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacggcc cggcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtggcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggaggggaat gcccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccc agccgagagt agcagttgta gctacccgcc caggtagggg cgcgccgtcg	600
acggatccgg gccaggggac ggtggcttct acgtgcttgg gacgttcca gccaccgtcc	660
catgttcccg gcggggggcc agctgtcccc accgccagcc caactcagca cttggtcagg	720
gtatcagctt ggtggggggg cgtgagccca gcccctgggg cggctcagcc catacaaggc	780
catggggctg ggcgcaaagc atgcctgggt tcagggtggg tatggtgcgg gagcaggggag	840
gtgagaggct cagctgccct ccagaactcc tccctgggga caaccctcc cagccaatag	900
cacagcctag gtccccctat ataaggccac ggctgctggc ctttcctttg ggtcagtgtc	960
acctccagga tacagacagc cccccttcag ccagcccag ccaggtagcg atccgtcgac	1020
ggcgcgccac gcgtcagttt actcaccagg gattcagagg cagcactgct gaaccctgag	1080
cccttggcac atcaggttgg ctgtcagaag tcggcctttg tacatacaca gttcccttgt	1140
gaggcccagc tgcgtgtcct aggagcgggg cctctctcca cagcagagct cagcctctca	1200
agtgtatgga cagcacgggt gcctgatggg tggatttagc catgagttga aggtggcttg	1260
gggagaatga gaggcttaga gatagggaga aggggttgcc aataggagag tggaattcct	1320
gagcacctcg tcacaggcag ccgacagaac atgagccgca gggcccaggc tatttataacc	1380
tcgcctgtca ctatcagggt cccacagct ccccccacct ccagccacac acagcaggtc	1440
cttttgctct ttctgggtcc ttctctactc ctccccctcc ctacctaagg taccacacgc	1500

gttacgtggc caccgccttc ggcaccatcc tcacgacacc caaatatggc gacgggtgag	1560
gaatggtggg gagttatfff tagagcggtg aggaaggtgg gcaggcagca ggtgttggcg	1620
ctctaaaaat aactcccggg agttatfff agagcggagg aatggtggac acccaaatat	1680
ggcgacggtt cctcaccgt cgccatattt ggggtgtccgc cctcggccgg ggccgcattc	1740
ctggggggccg ggcggtgctc ccgcccgcct cgataaaagg ctccggggcc ggccggcgcc	1800
cacgagctac ccggaggagc gggaggcgcc aagctctaga tctagaaaga ggtaagggtt	1860
taagggatgg ttggttggg gggtattaat gtttaattac ctggagcacc tgcctgaaat	1920
cacttttttt caggttgga gcttgccacc atggctgctg ccgctgctgc tgcagctgaa	1980
cagcaatcta gcaacggccc cgtgaagaaa tccatgcgcg agaaggccgt cgagcggaga	2040
tctgtgaaca aagagcacia cagcaacttc aaggccggct acatcccat cgacgaggac	2100
agactgcaca agacaggcct gagaggcaga aagggaatc tggccatctg cgtgatcatc	2160
ctgctgttca tcctggccgt gatcaacctg atcatcacc tggatcatctg ggccgtgatt	2220
agaatcggcc ccaacggctg cgacagcatg gaatttcacg agagcggcct gctgcggttc	2280
aaacagggtg ccgatatggg cgtgatccat ccactgtaca agagcaccgt tggcggcaga	2340
agaaacgaga atctggtcat caccggcaac aaccagccta tcgtgtttca gcagggcacc	2400
accaagctga gcgtggaaaa caacaagacc agcatcacca gcgacatcgg catgcagttc	2460
ttcgaccca gaacacagaa catcctgttc agcaccgact acgagacaca cgagttccat	2520
ctgcctagcg gcgtgaagtc cctgaatgtg cagaaggcca gcaccgagag aatcaccagc	2580
aatgccacct ccgacctgaa catcaaagt gacggcagag ccatcgtgcg gggaaatgag	2640
ggcgtgttca tcatgggcaa gaccatcgag ttccacatgg gcggcaacat ggaactgaag	2700
gccgagaaca gcatcatcct gaacggcagc gtgatggtgt ccaccacaag actgccaagc	2760
agcagctctg gcgatcagct tggatctggc gactgggtcc gatacaagct gtgtatgtgt	2820
gccgacggca ccctgttcaa ggtgcaagt acaagccaga acatgggctg ccagatcagc	2880
gacaaccctt gcggcaatac ccactgattc gaaacgtcaa gtccatcttg agcatctgac	2940
ttctggctaa ataaaagatc tttatfffca ttagatctgt gtgttgggtt tttgtgtgcg	3000

tcgagatcca cggccgcagg aaccctagt gatggagttg gccactccct ctctgcgcgc	3060
tcgctcgctc actgaggccg ggcgaccaa ggtcgcccga cggccgggct ttgcccgggc	3120
ggcctcagtg agcgagcgag cgcgcagctg cctgcagggg cgcctgatgc ggtatcttct	3180
ccttacgcat ctgtgcggtg tttcacaccg catacgtcaa agcaaccata gtacgcgccc	3240
tgtagcggcg cattaagcgc ggcgggtgtg gtggttacgc gcagcgtgac cgctacactt	3300
gccagcggcc tagcgccgc tcctttcgct ttcttcctt cctttctcgc cacgttcgcc	3360
ggctttcccc gtcaagctct aaatcgggg ctcccttag ggttccgatt tagtgcttta	3420
cggcacctcg acccaaaaa acttgatttg ggtgatggtt cacgtagtgg gccatcgccc	3480
tgatagacgg tttttcgccc ttgacgttg gagtccacgt tctttaatag tggactcttg	3540
ttccaaactg gaacaacact caaccctatc tcgggctatt cttttgattt ataagggatt	3600
ttgccgattt cggcctattg gttaaaaaat gagctgattt aacaaaaatt taacgcgaat	3660
tttaacaaaa tattaacgtt tacaatttta tgggtgcactc tcagtacaat ctgctctgat	3720
gccgcatagt taagccagcc ccgacacccg ccaacacccg ctgacgcgcc ctgacgggct	3780
tgtctgctcc cggcatccgc ttacagacaa gctgtgaccg tctccgggag ctgcatgtgt	3840
cagaggtttt caccgtcatc accgaaacgc gcgagacgaa agggcctcgt gatacgcta	3900
tttttatagg ttaatgtcat gataataatg gtttcttaga cgtcagggtg cacttttcgg	3960
ggaaatgtgc gcggaacccc tatttgttta tttttctaaa tacattcaaa tatgtatccg	4020
ctcatgagac aataaccctg ataaatgctt caataatatt gaaaaaggaa gagtatgagt	4080
attcaacatt tccgtgtcgc cttattccc ttttttgcgg cttttgcct tcctgttttt	4140
gctcaccag aaacgctggt gaaagtaaaa gatgctgaag atcagttggg tgcacgagt	4200
ggttacatcg aactggatct caacagcggg aagatccttg agagttttcg cccgaagaa	4260
cgttttccaa tgatgagcac ttttaaagtt ctgctatgtg gcgcggtatt atcccgtatt	4320
gacgccgggc aagagcaact cggtcgccgc atacactatt ctcagaatga cttggttgag	4380
tactcaccag tcacagaaaa gcatcttacg gatggcatga cagtaagaga attatgcagt	4440
gctgccataa ccatgagtga taacactgcg gccaaacttac ttctgacaac gatcggagga	4500

ccgaaggagc taaccgcttt tttgcacaac atgggggagc atgtaactcg ctttgatcgt	4560
tgggaaccgg agctgaatga agccatacca aacgacgagc gtgacaccac gatgcctgta	4620
gcaatggcaa caacgttgcg caaactatta actggcgaac tacttactct agcttcccgg	4680
caacaattaa tagactggat ggaggcggat aaagttgcag gaccacttct gcgctcggcc	4740
cttccggctg gctggtttat tgctgataaa tctggagccg gtgagcgtgg gtctcgcggt	4800
atcattgcag cactggggcc agatggtaag ccctcccgtg tcgtagttat ctacacgacg	4860
gggagtcagg caactatgga tgaacgaaat agacagatcg ctgagatagg tgcctcactg	4920
attaagcatt ggtaactgtc agaccaagtt tactcatata tacttttagat tgatttaaaa	4980
cttcattttt aatttaaaag gatctaggtg aagatccttt ttgataatct catgacccaa	5040
atcccttaac gtgagttttc gttccactga gcgtcagacc ccgtagaaaa gatcaaagga	5100
tcttcttgag atcctttttt tctgcgcgta atctgctgct tgcaaacaaa aaaaccaccg	5160
ctaccagcgg tggtttgttt gccggatcaa gagctaccaa ctctttttcc gaaggtaact	5220
ggcttcagca gagcgcagat accaaatact gtccttctag tgtagccgta gttaggccac	5280
cacttcaaga actctgtagc accgcctaca tacctcgctc tgctaatacct gttaccagtg	5340
gctgctgcca gtggcgataa gtcgtgtctt accgggttgg actcaagacg atagttaccg	5400
gataaggcgc agcggtcggg ctgaacgggg ggttcgtgca cacagcccag cttggagcga	5460
acgacctaca ccgaactgag atacctacag cgtgagctat gagaaagcgc cacgcttccc	5520
gaaggggagaa aggcggacag gtatccggtg agcggcaggg tcggaacagg agagcgcacg	5580
agggagcttc cagggggaaa cgcctggtat ctttatagtc ctgtcgggtt tcgccacctc	5640
tgacttgagc gtcgattttt gtgatgctcg tcaggggggc ggagcctatg gaaaaacgcc	5700
agcaacgcgg cttttttacg gttcctggcc ttttgctggc cttttgctca catgt	5755

<210> 33

<211> 5755

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE02-CRE06-CSK-SH5-SPc5-12-MVM-hß-SG-pA

<400> 33

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc cggggcgctc ggcgaccttt	60
ggtcgcccgg cctcagttag cgagcgagcg cgagagagg gaggggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgacctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacggcc cggcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtggcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggaggggaat gccgcgggc tatataaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttccc tccgcggcga	540
ccaggggccc agccgagagt agcagttgta gctaccgcc caggtagggg cgcgccgtcg	600
acggatccgg gccaggggac ggtggcttct acgtgcttgg gacgttcca gccaccgtcc	660
catgttcccg gcggggggcc agctgtcccc accgccagcc caactcagca cttggtcagg	720
gtatcagctt ggtggggggg cgtgagccca gcccctgggg cggctcagcc catacaaggc	780
catggggctg ggcgcaaagc atgcctgggt tcagggtggg tatggtgcgg gagcagggag	840
gtgagaggct cagctgccct ccagaactcc tccctgggga caaccctcc cagccaatag	900
cacagcctag gtccccctat ataaggccac ggctgctggc ccttcctttg ggtcagtgct	960
acctccagga tacagacagc cccccttcag ccagcccag ccaggtagcg atccgtcgac	1020
ggcgcgccac gcgtcagttt actcaccagg gattcagagg cagcactgct gaaccctgag	1080
cccttggcac atcaggttgg ctgtcagaag tcggcctttg tacatacaca gttcccttgt	1140
gaggcccagc tgcgtgtcct aggagcgggg cctctctcca cagcagagct cagcctctca	1200
agtgtatgga cagcacgggt gcctgatggg tggatttagc catgagttga aggtggcttg	1260
gggagaatga gatttctaga gatagggaga aggggttgcc aataggagag tggaattcct	1320
gagcacctcg tcacaggcag ccgacagaac atgagccgca gggcccaggc tatttatacc	1380
tcgcctgtca ctatcagggt cccacagct ccccccact ccagccacac acagcaggtc	1440

cttttgctct ttctgggtccc ttctctactc ctccccctcc ctacctaagg tacccaacgc	1500
gttacgtggc caccgccttc ggcaccatcc tcacgacacc caaatatggc gacgggtgag	1560
gaatgggtggg gagttatttt tagagcgggtg aggaaggtgg gcaggcagca ggtgttggcg	1620
ctctaaaaat aactcccggg agttattttt agagcggagg aatggtggac acccaaatat	1680
ggcgacgggt cctcaccctg cgccatattt ggggtgtccgc cctcggccgg ggccgcattc	1740
ctggggggccg ggcggtgctc ccgcccgcct cgataaaagg ctccggggcc ggccggcgcc	1800
cacgagctac ccggaggagc gggaggcgcc aagctctaga tctagaaaga ggtaagggtt	1860
taagggatgg ttggttgggt ggggtattaat gtttaattac ctggagcacc tgcctgaaat	1920
cacttttttt caggttggaa gcttgccacc atggcggcag cggcggcggc ggctgcagaa	1980
cagcaaagt ccaatgggtc tgtaaagaag tccatgcgtg agaaggctgt tgagagaagg	2040
agtgtcaata aagagcaca cagtaacttt aaagctggat acattccgat tgatgaagat	2100
cgtctccaca aaacagggtt gagaggaaga aagggaatt tagccatctg tgtgattatc	2160
ctcttgttta tcctggctgt catcaattta ataataacac ttgttatttg ggccgtgatt	2220
cgcattggac caaatggctg tgatagtatg gagtttcatg aaagtggcct gcttcgattt	2280
aagcaagtat ctgacatggg agtgatccac cctctttata aaagcacagt aggaggaagg	2340
cgaaatgaaa atttgggtcat cactggcaac aaccagccta ttgtttttca gcaagggaca	2400
acaaagctca gtgtagaaaa caacaaaact tctattacaa gtgacatcgg catgcagttt	2460
tttgacccga ggactcaaaa tatcttattc agcacagact atgaaactca tgagtttcat	2520
ttgccaagtg gagtgaaaag tttgaatgtt caaaaggcat ctactgaaag gattaccagc	2580
aatgctacca gtgatttaaa tataaaagt gatgggcgtg ctattgtgcg tggaaatgaa	2640
gggtgtattc ttatgggcaa aaccattgaa ttccacatgg gtggtaatat ggagttaaag	2700
gcggaaaaca gtatcatcct aaatggatct gtgatgggtc gcaccacccg cctaccagat	2760
tcctccagtg gagaccagtt gggtagtggt gactgggtac gctacaagct ctgcatgtgt	2820
gctgatggga cgctcttcaa ggtgcaagta accagccaga acatgggctg ccaaattctca	2880
gacaaccct gtggaaacac tcattaattc gaaacgtcaa gtccatcttg agcatctgac	2940

ttctggctaa ataaaagatc tttatittca ttagatctgt gtgttggttt tttgtgtgcg	3000
tcgagatcca cggccgcagg aaccctagt gatggagttg gccactccct ctctgcgcgc	3060
tcgctcgctc actgaggccg ggcgaccaa ggtcgccga cgccgggct ttgccgggc	3120
ggcctcagt agcgagcgag cgcgcagctg cctgcagggg cgctgatgc ggtattttct	3180
ccttacgcat ctgtgcggtt tttcacaccg catacgtcaa agcaaccata gtacgcgccc	3240
tgtagcggcg cattaagcgc ggcgggtgtg gtggttacgc gcagcgtgac cgctacactt	3300
gccagcggc tagcgccgc tcctttcgct ttcttcctt cttttctgc cacgttcgcc	3360
ggctttcccc gtcaagctct aaatcgggg ctcccttag ggttcgatt tagtgcttta	3420
cggcacctcg acccaaaaa acttgatttg ggtgatggtt cacgtagtgg gccatcgccc	3480
tgatagacgg tttttcgccc ttgacgttg gagtccacgt tctttaatag tggactcttg	3540
ttccaaactg gaacaacact caaccctatc tcgggctatt cttttgattt ataagggatt	3600
ttgccgattt cggcctattg gttaaaaaat gagctgattt aacaaaaatt taacgcgaat	3660
tttaacaaaa tattaacgtt tacaatttta tgggtgactc tcagtacaat ctgctctgat	3720
gccgcatagt taagccagcc ccgacacccg ccaacacccg ctgacgcgcc ctgacgggct	3780
tgtctgctcc cggcatccgc ttacagacaa gctgtgaccg tctccgggag ctgcatgtgt	3840
cagaggtttt caccgtcatc accgaaacgc gcgagacgaa agggcctcgt gatacgccta	3900
tttttatagg ttaatgtcat gataataatg gtttcttaga cgtcagggtg cacttttcgg	3960
ggaaatgtgc gcggaacccc tatttgttta tttttctaaa tacattcaaa tatgtatccg	4020
ctcatgagac aataaccctg ataaatgctt caataatatt gaaaaaggaa gagtatgagt	4080
attcaacatt tccgtgtcgc cttattccc tttttgcgg cattttgcct tcctgttttt	4140
gctcaccag aaacgctggt gaaagtaaaa gatgctgaag atcagttggg tgcacgagt	4200
ggttacatcg aactggatct caacagcggg aagatccttg agagttttcg cccgaagaa	4260
cgttttccaa tgatgagcac ttttaaagtt ctgctatgtg gcgcggtatt atcccgtatt	4320
gacgccgggc aagagcaact cggtcgccgc atacactatt ctcagaatga cttggttgag	4380
tactcaccag tcacagaaaa gcatcttac gatggcatga cagtaagaga attatgcagt	4440

gctgccataa ccatgagtga taacactgcg gccaaacttac ttctgacaac gatcggagga	4500
ccgaaggagc taaccgcttt ttgcacaac atgggggagc atgtaactcg ctttgatcgt	4560
tgggaaccgg agctgaatga agccatacca aacgacgagc gtgacaccac gatgcctgta	4620
gcaatggcaa caacgttgcg caaactatta actggcgaac tacttactct agcttcccgg	4680
caacaattaa tagactggat ggaggcggat aaagttgcag gaccacttct gcgctcggcc	4740
cttccggctg gctggtttat tgctgataaa tctggagccg gtgagcgtgg gtctcgcggt	4800
atcattgcag cactggggcc agatggtaag ccctcccgta tcgtagttat ctacacgacg	4860
gggagtcagg caactatgga tgaacgaaat agacagatcg ctgagatagg tgcctcactg	4920
attaagcatt ggtaactgtc agaccaagtt tactcatata tacttttagat tgatttaaaa	4980
cttcattttt aatttaaaag gatctagggtg aagatccttt ttgataatct catgaccaaa	5040
atcccttaac gtgagttttc gttccactga gcgtcagacc ccgtagaaaa gatcaaagga	5100
tcttcttgag atcctttttt tctgcgcgta atctgctgct tgcaaacaaa aaaaccaccg	5160
ctaccagcgg tggtttgttt gccggatcaa gagctaccaa ctctttttcc gaaggtaact	5220
ggcttcagca gagcgcagat accaaatact gtccttctag tgtagccgta gttaggccac	5280
cacttcaaga actctgtagc accgcctaca tacctcgctc tgctaatacct gttaccagtg	5340
gctgctgcca gtggcgataa gtcgtgtctt accgggttgg actcaagacg atagttaccg	5400
gataaggcgc agcggtcggg ctgaacgggg ggttcgtgca cacagcccag cttggagcga	5460
acgacctaca ccgaactgag atacctacag cgtgagctat gagaaagcgc cacgcttccc	5520
gaaggagaaa aggcggacag gtatccggtg agcggcaggg tcggaacagg agagcgcacg	5580
agggagcttc cagggggaaa cgcctggtat ctttatagtc ctgtcgggtt tcgccacctc	5640
tgacttgagc gtcgattttt gtgatgctcg tcaggggggc ggagcctatg gaaaaacgcc	5700
agcaacgcgg cctttttacg gttcctggcc ttttgctggc cttttgctca catgt	5755

<210> 34
 <211> 6296
 <212> DNA
 <213> Secuencia Artificial

<220>

<223> AAV-CRE02-CRE04-CRE06-CSK-SH5-SPc5-12-MVM-hß-SGco-pA

<400> 34

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgcccgg cctcagttag cgagcgagcg cgcagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgacctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacgcc cggcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtgtccc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cgggggtggcg cggaggggaat gccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccc agccgagagt agcagttgta gctaccgcc caggtagggg cgcgcccgt	600
cggtcgacgg atcccccttt agagaatcca cacctgtccc agttgctggg ttccactacc	660
aaaagtgaat tgcaactatt ttaggagcac ttaagcacat ccgaaaaatg agtgattctg	720
ttctggcca caccacatca ctgatgtacc cccttaaagc atgtccctga gttcatcaca	780
gaagactgct cctcctgtgc cctccacaag gttagaactg tccttgtctt agggaaaaag	840
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gggacaggca	900
ccaactgggt aacctctgct gacccccact ctactttacc ataagtagct ccaaatacctt	960
ctagaaaaatc tgaaaggcat agccccatat atcagtata taaatagaac ctgcagcagg	1020
ctctggtaaa tgatgactac aaggtggact gggaggcagc ccggccttgg caggcatcat	1080
cctctaaata taaagatgag tttgttcagc ctttgagaa ggaggcgcgc cgtcgacgga	1140
tccgggccag gggacggtgg cttctacgtg cttgggacgt tcccagccac cgtcccatgt	1200
tcccggcggg gggccagctg tccccaccgc cagcccaact cagcacttgg tcagggtatc	1260
agcttggtgg gggggcgtga gccagcccc tggggcggct cagccatac aaggccatgg	1320
ggctgggcgc aaagcatgcc tgggttcagg gtgggtatgg tgcgggagca gggaggtgag	1380

aggctcagct gccctccaga actcctccct ggggacaacc cctcccagcc aatagcacag	1440
cctaggtccc cctatataag gccacggctg ctggcccttc ctttgggtca gtgtcacctc	1500
caggatacag acagcccccc tttagcccag cccagccagg tacggatccg tcgaccgtac	1560
gggcgcgcca cgcgtcagtt tactcaccag ggattcagag gcagcactgc tgaaccctga	1620
gcccttggca catcaggttg gctgtcagaa gtcggccttt gtacatacac agttcccttg	1680
tgaggcccag ctgcgtgtcc taggagcggg gcctctctcc acagcagagc tcagcctctc	1740
aagtgtatgg acagcacggg tgcctgatgg gtggatttag ccatgagttg aaggtggctt	1800
ggggagaatg agagttctag agataggag aaggggttgc caataggaga gtggaattcc	1860
tgagcacctc gtcacaggca gccgacagaa catgagccgc agggcccagg ctattttatac	1920
ctcgcctgtc actatcaggg tccccacagc tccccccacc tccagccaca cacagcaggt	1980
ccttttgctc tttctggtcc cttctctact cctccccctc cctacctaag gtaccaacg	2040
cgttacgtgg ccaccgcctt cggcaccatc ctcacgacac ccaaatatgg cgacgggtga	2100
ggaatggtgg ggagttatth ttagagcggg gaggaaggtg ggcaggcagc aggtgttggc	2160
gctctaaaaa taactcccgg gagttattht tagagcggag gaatggtgga cacccaaata	2220
tggcgacggg tcctcaccgg tcgcatatt tgggtgtccg ccctcggccg gggccgcatt	2280
cctggggggc gggcgggtgt cccgcccgc tcgataaaag gctccggggc cggcggcggc	2340
ccacgagcta cccggaggag cgggaggcgc caagctctag atctagaaag aggttaagggt	2400
ttaagggatg gttggttggg ggggtattaa tgtttaatta cctggagcac ctgcctgaaa	2460
tcactttttt tcaggttgga agcttgccac catggctgct gccgctgctg ctgcagctga	2520
acagcaatct agcaacggcc ccgtgaagaa atccatgcgc gagaaggccg tcgagcggag	2580
atctgtgaac aaagagcaca acagcaactt caaggccggc tacatcccca tcgacgagga	2640
cagactgcac aagacaggcc tgagaggcag aaagggaat ctggccatct gcgtgatcat	2700
cctgctgttc atcctggccg tgatcaacct gatcatcacc ctggtcatct gggccgtgat	2760
tagaatcggc cccaacggct gcgacagcat ggaatttcac gagagcggcc tgctgcggtt	2820
caaacaggtg tccgatatgg gcgtgatcca tccactgtac aagagcaccg ttggcggcag	2880

aagaaacgag aatctggtca tcaccggcaa caaccagcct atcgtgtttc agcagggcac	2940
caccaagctg agcgtggaaa acaacaagac cagcatcacc agcgacatcg gcatgcagtt	3000
cttcgacccc agaacacaga acatcctgtt cagcaccgac tacgagacac acgagttcca	3060
tctgcctagc ggcgtgaagt ccctgaatgt gcagaaggcc agcaccgaga gaatcaccag	3120
caatgccacc tccgacctga acatcaaagt ggacggcaga gccatcgtgc ggggaaatga	3180
gggcgtgttc atcatgggca agaccatcga gttccacatg ggcggaaca tggaactgaa	3240
ggccgagaac agcatcatcc tgaacggcag cgtgatggtg tccaccacaa gactgccaaag	3300
cagcagctct ggcgatcagc ttggatctgg cgactgggtc cgatacaagc tgtgtatgtg	3360
tgccgacggc accctgttca aggtgcaagt gacaagccag aacatgggct gccagatcag	3420
cgacaaccct tgcggcaata cccactgatt cgaaacgtca agtccatctt gagcatctga	3480
cttctggcta aataaaagat ctttattttc attagatctg tgtgttggtt ttttgtgtgc	3540
gtcgagatcc acggccgcag gaaccctag tgatggagtt ggccactccc tctctgcgcg	3600
ctcgctcgct cactgaggcc gggcgaccaa aggtcgcccc acgcccgggc tttgcccggg	3660
cggcctcagt gagcgagcga gcgcgcagct gcctgcaggg gcgcctgatg cggtattttc	3720
tccttacgca tctgtgcggt atttcacacc gcatacgtca aagcaaccat agtacgcgc	3780
ctgtagcggc gcattaagcg cggcgggtgt ggtggttacg cgcagcgtga ccgctacact	3840
tgccagcgcc ctagcgcccg ctcccttcgc tttcttcctt tcctttctcg ccacgttcgc	3900
cggctttccc cgtcaagctc taaatcgggg gctcccctta gggttccgat ttagtgcttt	3960
acggcacctc gacccccaaa aacttgattt gggatgatgt tcacgtagtg ggccatcgcc	4020
ctgatagacg gtttttcgcc ctttgacgtt ggagtccacg ttctttaata gtggactctt	4080
gttccaaact ggaacaacac tcaaccctat ctcgggctat tcttttgatt tataagggat	4140
tttgccgatt tcggcctatt ggttaaaaaa tgagctgatt taacaaaaat ttaacgcgaa	4200
ttttaacaaa atattaacgt ttacaatttt atggtgcact ctcagtacaa tctgctctga	4260
tgccgcatag ttaagccagc cccgacacc gccaacacc gctgacgcgc cctgacgggc	4320
ttgtctgctc ccggcatccg cttacagaca agctgtgacc gtctccggga gctgcatgtg	4380

tcagaggttt tcaccgtcat caccgaaacg cgcgagacga aagggcctcg tgatacgcct	4440
atTTTTatag gttaatgtca tgataataat ggTTTTcttag acgtcaggtg gcactTTTtcg	4500
gggaaatgtg cgcggaaccc ctatttgTTT atTTTTctaa atacattcaa atatgtatcc	4560
gctcatgaga caataaccct gataaatgct tcaataatat tgaaaaagga agagtatgag	4620
tattcaacat ttccgtgtcg cccttattcc cTTTTtgcg gcattTTtgcc tTcctgTTTT	4680
tgctcaccca gaaacgctgg tgaaagtaaa agatgctgaa gatcagttgg gtgcacgagt	4740
gggttacatc gaactggatc tcaacagcgg taagatcctt gagagTTTTc gccccgaaga	4800
acgtTTTcca atgatgagca cTTTTaaagt tctgctatgt ggcgcggtat tatcccgtat	4860
tgacgccggg caagagcaac tcggtcgccg catacactat tctcagaatg acttggttga	4920
gtactcacca gtcacagaaa agcatcttac ggatggcatg acagtaagag aattatgcag	4980
tgctgccata accatgagtg ataacactgc ggccaactta cttctgacaa cgatcggagg	5040
accgaaggag ctaaccgctt ttttgacaaa catgggggat catgtaactc gccttgatcg	5100
ttgggaaccg gagctgaatg aagccatacc aaacgacgag cgtgacacca cgatgcctgt	5160
agcaatggca acaacgttgc gcaaactatt aactggcgaa ctacttactc tagcttcccg	5220
gcaacaatta atagactgga tggaggcgga taaagttgca ggaccacttc tgcgctcggc	5280
ccttccggct ggctggttta ttgctgataa atctggagcc ggtgagcgtg ggtctcgcg	5340
tatcattgca gcaactgggc cagatggtaa gccctcccgt atcgtagtta tctacacgac	5400
ggggagtcag gcaactatgg atgaacgaaa tagacagatc gctgagatag gtgcctcact	5460
gattaagcat tggtaactgt cagaccaagt ttactcatat atactttaga ttgatttaaa	5520
acttcatttt taatttaaaa ggatctaggt gaagatcctt tttgataatc tcatgaccaa	5580
aatcccttaa cgtgagTTTT cgttccactg agcgtcagac cccgtagaaa agatcaaagg	5640
atcttcttga gatcctTTTT ttctgcgcgt aatctgctgc ttgcaaacaa aaaaaccacc	5700
gctaccagcg gtggtttggt tgccggatca agagctacca actctTTTTc cgaaggtaac	5760
tggcttcagc agagcgcaga taccaaatac tgtccttcta gtgtagccgt agttaggcca	5820
ccacttcaag aactctgtag caccgcctac atacctcgct ctgctaatacc tgttaccagt	5880

ggctgctgcc agtggcgata agtcgtgtct taccgggttg gactcaagac gatagttacc	5940
ggataaggcg cagcggtcgg gctgaacggg gggttcgtgc acacagccca gcttggagcg	6000
aacgacctac accgaactga gataacctaca gcgtgagcta tgagaaagcg ccacgcttcc	6060
cgaagggaga aaggcggaca ggtatccggt aagcggcagg gtcggaacag gagagcgcac	6120
gagggagctt ccagggggaa acgcctggta tctttatagt cctgtcgggt ttcgccacct	6180
ctgacttgag cgtcgatttt tgtgatgctc gtcagggggg cggagcctat ggaaaaacgc	6240
cagcaacgcg gcctttttac ggttcctggc cttttgctgg cttttgctc acatgt	6296

<210> 35

<211> 6296

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE02-CRE04-CRE06-CSK-SH5-SPc5-12-MVM-hß-SG-pA

<400> 35

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgcccgg cctcagtgag cgagcgagcg cgagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgaccctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacggcc cggcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtgcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggaggggaat gcccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccagggcccg agccgagagt agcagttgta gctacccgcc caggtagggg cgcgcccgt	600
cggtcgacgg atcccccttt agagaatcca cacctgtccc agttgctggg ttccactacc	660
aaaagtgaat tgcaactatt ttaggagcac ttaagcacat ccgaaaaatg agtgattctg	720
ttctggccca caccacatca ctgatgtacc cccttaaagc atgtccctga gttcatcaca	780

gaagactgct cctcctgtgc cctccacaag gttagaactg tccttgtctt agggaaaaag	840
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gggacaggca	900
ccaactgggt aacctctgct gacccccact ctactttacc ataagtagct ccaaatcctt	960
ctagaaaatc tgaaaggcat agccccatat atcagtgata taaatagaac ctgcagcagg	1020
ctctggtaaa tgatgactac aaggtggact gggaggcagc ccggccttgg caggcatcat	1080
cctctaaata taaagatgag tttgttcagc ctttgcagaa ggaggcgcgc cgtcgacgga	1140
tccgggccag gggacggtgg cttctacgtg cttgggacgt tcccagccac cgtcccatgt	1200
tcccggcggg gggccagctg tccccaccgc cagcccaact cagcacttgg tcagggtatc	1260
agcttggtgg gggggcgtga gccagcccc tggggcggct cagcccatac aaggccatgg	1320
ggctgggcgc aaagcatgcc tgggttcagg gtgggtatgg tgcgggagca gggagggtgag	1380
aggctcagct gccctccaga actcctccct ggggacaacc cctcccagcc aatagcacag	1440
cctaggtccc cctatataag gccacggctg ctggcccttc ctttgggtca gtgtcacctc	1500
caggatacag acagcccccc ttcagcccag cccagccagg tacggatccg tcgaccgtac	1560
gggcgcgcca cgcgtcagtt tactcaccag ggattcagag gcagcactgc tgaaccctga	1620
gcccttggca catcaggttg gctgtcagaa gtcggccttt gtacatacac agttcccttg	1680
tgaggcccag ctgcgtgtcc taggagcggg gcctctctcc acagcagagc tcagcctctc	1740
aagtgtatgg acagcacggg tgcctgatgg gtggatttag ccatgagttg aaggtggctt	1800
ggggagaaatg agagttctag agataggag aaggggttgc caataggaga gtggaattcc	1860
tgagcacctc gtcacaggca gccgacagaa catgagccgc agggcccagg ctattttatac	1920
ctcgcctgtc actatcaggg tccccacagc tccccccacc tccagccaca cacagcaggt	1980
ccttttgctc tttctggtcc cttctctact cctccccctc cctacctaag gtaccaacg	2040
cgttacgtgg ccaccgcctt cggcaccatc ctcacgacac ccaaatatgg cgacgggtga	2100
ggaatggtgg ggagttatct ttagagcggg gaggaagggtg ggcaggcagc aggtgttggc	2160
gctctaaaaa taactcccgg gagttatctt tagagcggag gaatggtgga caccctaaata	2220
tggcgacggt tcctcaccg tcgcatatt tgggtgtccg ccctcggccg gggccgcatt	2280

cctgggggcc	gggcggtgct	ccgccccgcc	tcgataaaag	gctccggggc	cggcggcggc	2340
ccacgagcta	cccggaggag	cgggaggcgc	caagctctag	atctagaaag	aggtaagggt	2400
ttaagggatg	gttggttggt	ggggtattaa	tgtttaatta	cctgggagcac	ctgcctgaaa	2460
tcactttttt	tcaggttgga	agcttgccac	catggcggca	gcggcggcgg	cggctgcaga	2520
acagcaaagt	tccaatggtc	ctgtaaagaa	gtccatgcgt	gagaaggctg	ttgagagaag	2580
gagtgtcaat	aaagagcaca	acagtaactt	taaagctgga	tacattccga	ttgatgaaga	2640
tcgtctccac	aaaacagggt	tgagaggaag	aaagggcaat	ttagccatct	gtgtgattat	2700
cctcttgttt	atcctggctg	tcatcaattt	aataataaca	cttgttattt	gggccgtgat	2760
tcgcattgga	ccaaatggct	gtgatagtat	ggagtttcat	gaaagtggcc	tgcttcgatt	2820
taagcaagta	tctgacatgg	gagtgatcca	ccctctttat	aaaagcacag	taggaggaag	2880
gcgaaatgaa	aatttggta	tcactggcaa	caaccagcct	attgtttttc	agcaagggac	2940
aacaaagctc	agtgtagaaa	acaacaaaac	ttctattaca	agtgacatcg	gcatgcagtt	3000
ttttgacccg	aggactcaaa	atatcttatt	cagcacagac	tatgaaactc	atgagtttca	3060
tttgccaagt	ggagtgaaaa	gtttgaatgt	tcaaaaggca	tctactgaaa	ggattaccag	3120
caatgctacc	agtgatthaa	atataaaagt	tgatgggcgt	gctattgtgc	gtggaaatga	3180
agggtatttc	attatgggca	aaaccattga	atttcacatg	ggtggtaata	tggagttaaa	3240
ggcggaaaac	agtatcatcc	taaatggatc	tgtgatggtc	agcaccaccc	gcctaccag	3300
ttcctccagt	ggagaccagt	tgggtagtgg	tgactgggta	cgctacaagc	tctgcatgtg	3360
tgctgatggg	acgctcttca	aggtgcaagt	aaccagccag	aacatgggct	gccaaatctc	3420
agacaacccc	tgtggaaaca	ctcattaatt	cgaaacgtca	agtccatctt	gagcatctga	3480
cttctggcta	aataaaaagat	ctttattttc	attagatctg	tgtgttggtt	ttttgtgtgc	3540
gtcgagatcc	acggccgcag	gaacccttag	tgatggagtt	ggccactccc	tctctgcgcg	3600
ctcgctcgct	cactgaggcc	gggcgaccaa	aggtcgcccc	acgcccgggc	tttgcccggg	3660
cggcctcagt	gagcgagcga	gcgcgcagct	gcctgcaggg	gcgcctgatg	cggatattttc	3720
tccttacgca	tctgtgcggt	atttcacacc	gcatacgtca	aagcaaccat	agtacgcgcc	3780

ctgtagcggc gcattaagcg cggcgggtgt ggtggttacg cgcagcgtga ccgctacact	3840
tgccagcgcc ctagcgccc ctcctttcgc tttcttcctt tcctttctcg ccacgttcgc	3900
cggctttccc cgtcaagctc taaatcgggg gctcccttta gggttccgat ttagtgcttt	3960
acggcacctc gaccccaaaa aacttgattt gggatgatgt tcacgtagtg ggccatcgcc	4020
ctgatatagc gtttttcgcc ctttgacgtt ggagtccacg ttctttaata gtggactctt	4080
gttccaaact ggaacaacac tcaaccctat ctcgggctat tcttttgatt tataagggat	4140
tttgccgatt tcggcctatt ggtaaaaaa tgagctgatt taacaaaaat ttaacgcgaa	4200
ttttaacaaa atattaacgt ttacaatttt atggtgcact ctcagtacaa tctgctctga	4260
tgccgcatag ttaagccagc cccgacacc gccaacacc gctgacgcgc cctgacgggc	4320
ttgtctgtc ccggcatccg cttacagaca agctgtgacc gtctccggga gctgcatgtg	4380
tcagaggttt tcaccgtcat caccgaaacg cgcgagacga aagggcctcg tgatacgctt	4440
atttttatag gttaatgtca tgataataat ggtttcttag acgtcaggtg gcacttttcg	4500
gggaaatgtg cgcggaacc ctatttgttt atttttctaa atacattcaa atatgtatcc	4560
gctcatgaga caataaccct gataaatgct tcaataatat tgaaaaagga agagtatgag	4620
tattcaacat ttccgtgtcg cccttattcc cttttttgcg gcattttgcc ttctgtttt	4680
tgctcaccca gaaacgctgg tgaaagtaaa agatgctgaa gatcagttgg gtgcacgagt	4740
gggttacatc gaactggatc tcaacagcgg taagatcctt gagagttttc gcccgaaga	4800
acgtttttcca atgatgagca cttttaaaagt tctgctatgt ggcgcggtat tatcccgat	4860
tgacgccggg caagagcaac tcggtcgccg catacactat tctcagaatg acttggttga	4920
gtactcacca gtcacagaaa agcatcttac ggatggcatg acagtaagag aattatgcag	4980
tgctgccata accatgagtg ataacactgc ggccaactta cttctgacaa cgatcggagg	5040
accgaaggag ctaaccgctt ttttgacaaa catgggggat catgtaactc gccttgatcg	5100
ttgggaaccg gagctgaatg aagccatacc aaacgacgag cgtgacacca cgatgcctgt	5160
agcaatggca acaacgttgc gcaaactatt aactggcgaa ctacttactc tagcttcccg	5220
gcaacaatta atagactgga tggaggcgga taaagttgca ggaccacttc tgcgctcggc	5280

ccttccggct ggctggttta ttgctgataa atctggagcc ggtgagcgtg ggtctcgcgg	5340
tatcattgca gcactggggc cagatggtaa gccctcccgt atcgtagtta tctacacgac	5400
ggggagtcag gcaactatgg atgaacgaaa tagacagatc gctgagatag gtgcctcact	5460
gattaagcat tggtaactgt cagaccaagt ttactcatat atactttaga ttgatttaaa	5520
acttcatttt taatttaaaa ggatctaggt gaagatcctt ttgataatc tcatgaccaa	5580
aatccccttaa cgtgagtttt cgttccactg agcgtcagac cccgtagaaa agatcaaagg	5640
atcttcttga gatccttttt ttctgcgcgt aatctgctgc ttgcaaaca aaaaaccacc	5700
gctaccagcg gtggtttggt tgccggatca agagctacca actctttttc cgaaggtaac	5760
tggcttcagc agagcgcaga taccaaatac tgtccttcta gtgtagccgt agttaggcca	5820
ccacttcaag aactctgtag caccgcctac atacctcgct ctgctaattc tgttaccagt	5880
ggctgctgcc agtggcgata agtcgtgtct taccgggttg gactcaagac gatagttacc	5940
ggataaggcg cagcggtcgg gctgaacggg gggttcgtgc acacagccca gcttggagcg	6000
aacgacctac accgaactga gatactaca gcgtgagcta tgagaaagcg ccacgcttcc	6060
cgaagggaga aaggcggaca ggtatccggt aagcggcagg gtcggaacag gagagcgcac	6120
gaggagcctt ccagggggaa acgcctggta tctttatagt cctgtcgggt ttcgccacct	6180
ctgacttgag cgtcgatttt tgtgatgctc gtcagggggg cggagcctat ggaaaaacgc	6240
cagcaacgcg gcctttttac ggttcctggc cttttgctgg ctttttgctc acatgt	6296

<210> 36

<211> 5961

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE06-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 36

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
---	----

ggtcgcccgg cctcagttag cgagcgagcg cgagagagg gagtggccaa ctccatcact	120
--	-----

aggggttcct gcggccgggc caggggacgg tggcttctac gtgcttggga cgttcccagc	180
---	-----

caccgtccca tgttcccggc gggggggccag ctgtccccac cgccagccca actcagcact	240
tggtcagggt atcagcttgg tggggggggcg tgagcccagc ccctggggcg gctcagccca	300
tacaaggcca tggggctggg cgcaaagcat gcctgggttc aggggtgggta tggcgcggga	360
gcagggaggt gagaggctca gctgccctcc agaactcctc cctggggaca acccctccca	420
gccaatagca cagcctaggt ccccctatat aaggccacgg ctgctggccc ttcctttggg	480
tcagtgtcac ctccaggata cagacagccc cccttcagcc cagcccagcc aggtacggcg	540
cgccacgcgt cagtttactc accagggatt cagaggcagc actgctgaac cctgagccct	600
tggcacatca ggttggtgtg cagaagtcgg cctttgtaca tacacagttc ctttgtgagg	660
cccagctgcg tgtcctagga gcggggcctc tctccacagc agagctcagc ctctcaagtg	720
tatggacagc acgggtgcct gatgggtgga tttagccatg agttgaaggt ggcttgggga	780
gaatgagagt tctagagata gggagaaggg gttgccaata ggagagtgga attcctgagc	840
acctcgtcac aggcagccga cagaacatga gccgcagggc ccaggctatt tatacctcgc	900
ctgtcactat cagggtcccc acagctcccc ccacctccag ccacacacag caggtccttt	960
tgctctttct ggtcccttct ctactcctcc ccctccctac ctaaggtacc caacgcgtta	1020
cgtggccacc gccttcggca ccctcctcac gacacccaaa tatggcgacg ggtgaggaat	1080
ggtggggagt tatttttaga gcggtgagga aggtgggcag gcagcaggtg ttggcgctct	1140
aaaaataact cccgggagtt attttttagag cggaggaatg gtggacaccc aaatatggcg	1200
acggttcctc acccgtcgc atatttggtt gtccgccctc ggccggggcc gcattcctgg	1260
gggccgggcg gtgctccgc ccgcctcgat aaaaggctcc ggggccggcg gcggcccacg	1320
agctacccgg aggagcggga ggcgccaagc tctagatcta gaaagaggta agggtttaag	1380
ggatggttgg ttggtgggggt attaagtgtt aattacctgg agcacctgcc tgaaatcact	1440
ttttttcagg ttggaagctt atggaagatg caaaaacat taagaagggc ccagcgccat	1500
tctaccctact cgaggacggg accgccggcg agcagctgca caaagccatg aagcgctacg	1560
ccctggtgcc cggcaccatc gcctttaccg acgcacatat cgagggtggac attacctacg	1620
ccgagtactt cgagatgagc gttcggctgg cagaagctat gaagcgctat gggctgaata	1680

caaaccatcg gatcgtggtg tgcagcgaga atagcttgca gttcttcatg cccgtgttgg	1740
gtgccctgtt catcgggtgtg gctgtggccc cagctaacga catctacaac gagcgcgagc	1800
tgctgaacag catgggcatc agccagccca ccgtcgtatt cgtgagcaag aaagggtgc	1860
aaaagatcct caacgtgcaa aagaagctac cgatcataca aaagatcatc atcatggata	1920
gcaagaccga ctaccagggc ttccaaagca tgtacacctt cgtgacttcc catttgccac	1980
ccggcttcaa cgagtacgac ttcgtgcccg agagcttcga ccgggacaaa accatcgccc	2040
tgatcatgaa cagtagtggc agtaccggat tgcccaaggg cgtagcccta ccgcaccgca	2100
ccgcttgtgt ccgattcagt catgcccgcg acccatctt cggcaaccag atcatccccg	2160
acaccgctat cctcagcgtg gtgccatttc accacggctt cggcatgttc accacgtgg	2220
gctacttgat ctgcggcttt cgggtcgtgc tcatgtaccg cttcgaggag gagctattct	2280
tgcgagctt gcaagactat aagattcaat ctgccctgct ggtgcccaca ctatttagct	2340
tcttcgctaa gagcactctc atcgacaagt acgacctaag caacttgcac gagatcgcca	2400
gcggcggggc gccgctcagc aaggaggtag gtgaggccgt ggccaaacgc ttccacctac	2460
caggcatccg ccagggtac ggcctgacag aaacaaccag cgccattctg atcacccccg	2520
aaggggacga caagcctggc gcagtaggca aggtggtgcc cttcttcgag gctaaggtgg	2580
tggacttgga caccggtgaa aactgggtg tgaaccagcg cggcgagctg tgcgtccgtg	2640
gccccatgat catgagcggc tacgttaaca accccgaggc taaaaacgct ctcatcgaca	2700
aggacggctg gctgcacagc ggcgacatcg cctactggga cgaggacgag cacttcttca	2760
tcgtggaccg gctgaagagc ctgatcaaata acaagggtta ccaggtagcc ccagccgaac	2820
tggagagcat cctgctgcaa caccacaata tcttcgacgc cggggtcgcc ggcctgcccg	2880
acgacgatgc cggcgagctg cccgccgcag tcgtcgtgct ggaacacggt aaaaccatga	2940
ccgagaagga gatcgtggac tatgtggcca gccaggttac aaccgccaag aagctgcgcg	3000
gtggtgttgt gttcgtggac gaggtgccta aaggactgac cggcaagttg gacgcccga	3060
agatccgcga gattctcatt aaggccaaga agggcggcaa gatcgccgtg taattcgaaa	3120
cgtctagtcc atcttgagca tctgacttct ggctaaataa aagatcttta ttttcattag	3180

atctgtgtgt tggttttttg tgtgcgtcga gatccacggc cgcaggaacc cctagtgatg	3240
gagttggcca ctccctctct gcgcgctcgc tcgctcactg aggccgggcg accaaaggctc	3300
gcccgcgccc cgggctttgc ccgggcggcc tcagtgcgag agcgagcgcg cagctgcctg	3360
caggggcgccc tgatgcggta ttttctcctt acgcatctgt gcggtatttc acaccgcata	3420
cgtcaaagca accatagtag gcgccctgta gcggcgcatc aagcgcggcg ggtgtggtgg	3480
ttacgcgcag cgtgaccgct acacttgcca gcgccctagc gcccgtcctt ttcgctttct	3540
tcccttcctt tctcgccacg ttcgccggct ttccccgtca agctctaaat cgggggctcc	3600
ctttagggtt ccgatttagt gctttacggc acctcgaccc caaaaaactt gatttggttg	3660
atggttcacg tagtgggcca tcgccctgat agacggtttt tcgccctttg acgttggagt	3720
ccacgttctt taatagtgga ctcttgttcc aaactggaac aacactcaac cctatctcgg	3780
gctattcttt tgatttataa gggattttgc cgatttcggc ctattggtta aaaaatgagc	3840
tgatttaaca aaaatttaac gcgaatttta acaaaatatt aacgtttaca attttatggt	3900
gcactctcag tacaatctgc tctgatgccg catagttaag ccagccccga caccgcctaa	3960
caccgcgtga cgcgccctga cgggcttgct tgctcccggc atccgcttac agacaagctg	4020
tgaccgtctc cgggagctgc atgtgtcaga ggttttcacc gtcacaccg aaacgcgcga	4080
gacgaaaggg cctcgtgata cgcctatttt tatagggtta tgtcatgata ataatggttt	4140
cttagacgtc aggtggcact tttcggggaa atgtgcgcgg aaccctatt tgtttatttt	4200
tctaaataca ttcaaatacg tatccgctca tgagacaata accctgataa atgcttcaat	4260
aatattgaaa aaggaagagt atgagtattc aacatttcgc tgtcgccctt attccctttt	4320
ttgcggcatt ttgccttcct gtttttgctc acccagaaac gctggtgaaa gtaaaagatg	4380
ctgaagatca gttgggtgca cgagtgggtt acatcgaact ggatctcaac agcggtaaga	4440
tccttgagag ttttcgcccc gaagaacgtt ttccaatgat gagcactttt aaagttctgc	4500
tatgtggcgc ggtattatcc cgtattgacg ccgggcaaga gcaactcggc cgccgcatac	4560
actattctca gaatgacttg gttgagtact caccagtcac agaaaagcat cttacggatg	4620
gcatgacagt aagagaatta tgcagtgtg ccataacat gagtgataac actgcggcca	4680

acttacttct gacaacgatc ggaggaccga aggagctaac cgcttttttg cacaacatgg	4740
gggatcatgt aactcgcctt gatcgttggg aaccggagct gaatgaagcc ataccaaacg	4800
acgagcgtga caccacgatg cctgtagcaa tggcaacaac gttgcgcaaa ctattaactg	4860
gcgaactact tactctagct tcccggcaac aattaataga ctggatggag gcggataaag	4920
ttgcaggacc acttctgcgc tcggcccttc cggctggctg gtttattgct gataaatctg	4980
gagccggtga gcgtgggtct cgcggtatca ttgcagcact ggggccagat ggtaagccct	5040
cccgtatcgt agttatctac acgacgggga gtcaggcaac tatggatgaa cgaaatagac	5100
agatcgctga gatagggtgcc tcactgatta agcattggta actgtcagac caagtttact	5160
catatatact ttagattgat ttaaaacttc atttttaatt taaaaggatc taggtgaaga	5220
tcctttttga taatctcatg accaaaatcc cttaacgtga gttttcgttc cactgagcgt	5280
cagaccccgt agaaaagatc aaaggatctt cttgagatcc tttttttctg cgcgtaatct	5340
gctgcttgca aacaaaaaaaa ccaccgctac cagcgggtgt ttgtttgccg gatcaagagc	5400
taccaactct ttttccgaag gtaactggct tcagcagagc gcagatacca aatactgtcc	5460
ttctagtgtg gccgtagtta ggccaccact tcaagaactc tgtagcaccg cctacatacc	5520
tcgctctgct aatcctgtta ccagtggctg ctgccagtgg cgataagtcg tgtcttaccg	5580
ggttggactc aagacgatag ttaccggata aggcgcagcg gtcgggctga acgggggggtt	5640
cgtgcacaca gcccagcttg gagcgaacga cctacaccga actgagatac ctacagcgtg	5700
agctatgaga aagcgccacg cttcccgaag ggagaaaggc ggacaggtat ccggtaaagc	5760
gcagggtcgg aacaggagag cgcacgaggg agcttccagg gggaaacgcc tggatatctt	5820
atagtcctgt cgggtttcgc cacctctgac ttgagcgtcg atttttgtga tgctcgtcag	5880
gggggcggag cctatggaaa aacgccagca acgcggcctt ttacgggttc ctggcctttt	5940
gctggccttt tgctcacatg t	5961

<210> 37
 <211> 6081
 <212> DNA
 <213> Secuencia Artificial

<220>

<223> AAV-CRE04-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 37

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcgc agagagggag	120
tggccaactc catcactagg ggttcctgcg gcccctttta gagaatccac acctgtccca	180
gttgctgggt tccactacca aaagtgaatt gcaactatth taggagcact taagcacatc	240
cgaaaaatga gtgattctgt tctggcccac accacatcac tgatgtaccc ctttaaagca	300
tgtccctgag ttcacacag aagactgctc ctctgtgcc ctccacaagg ttagaactgt	360
ccttgtctta gggaaaaagg agagagagag agagagagag agagagagag agagagagag	420
agagagagag ggacaggcac caactgggta acctctgctg acccccactc tactttacca	480
taagtagctc caaatccttc tagaaaatct gaaaggcata gcccataata tcagtgatata	540
aaatagaacc tgcagcaggc tctggtaaata gatgactaca aggtggactg ggaggcagcc	600
cggccttggc aggcatcatc ctctaaatat aaagatgagt ttgttcagcc tttgcagaag	660
gaggcgcgcc acgcgtcagt ttactcacca gggattcaga ggagcactg ctgaaccctg	720
agcccttggc acatcaggth ggctgtcaga agtcggcctt tgtacataca cagttccctt	780
gtgaggccca gctgcgtgtc ctaggagcgg ggcctctctc cacagcagag ctacgcctct	840
caagtgtatg gacagcacgg gtgcctgatg ggtggattta gccatgagth gaaggtggct	900
tggggagaat gagagttcta gagataggga gaaggggttg ccaataggag agtggaattc	960
ctgagcacct cgtcacaggc agccgacaga acatgagccg cagggccag gctattttata	1020
cctcgcctgt cactatcagg gtccccacag ctccccccac ctccagccac acacagcagg	1080
tccttttgct ctttctggct ctttctctac tcctccccct ccctacctaa ggtacccaac	1140
gcgttacgtg gccaccgcct tcggcaccat cctcacgaca cccaaatatg gcgacgggtg	1200
aggaatgggtg gggagttatt tttagagcgg tgaggaaggt gggcaggcag caggtgtttg	1260
cgctctaaaa ataactcccg ggagttatth ttagagcgga ggaatgggtg acacccaaat	1320
atggcgacgg ttcctcacc gtcgccatat ttgggtgtcc gccctcggcc ggggccgcat	1380

tcctgggggc cgggcggtgc tcccgccgc ctcgataaaa ggctccgggg ccggcggcgg	1440
cccacgagct acccggagga gcgggaggcg ccaagctcta gatctagaaa gaggtaaggg	1500
tttaagggat ggttggttg tgggggtatta atgtttaatt acctggagca cctgcctgaa	1560
atcacttttt ttcagggttg aagcttatgg aagatgccaa aaacattaag aagggccag	1620
cgccattcta ccactcgag gacgggaccg ccggcgagca gctgcacaaa gccatgaagc	1680
gctacgccct ggtgcccggc accatgcct ttaccgacgc acatatcgag gtggacatta	1740
cctacgccga gtacttcgag atgagcggtt ggctggcaga agctatgaag cgctatgggc	1800
tgaatacaaa ccatcggatc gtggtgtgca gcgagaatag cttgcagttc ttcatgccc	1860
tggtgggtgc cctgttcac ggtgtggctg tggccccagc taacgacatc tacaacgagc	1920
gcgagctgct gaacagcatg ggcatcagcc agcccaccgt cgtattcgtg agcaagaaag	1980
ggctgcaaaa gatcctcaac gtgcaaaaga agctaccgat catacaaaag atcatcatca	2040
tggatagcaa gaccgactac cagggttcc aaagcatgta caccttcgtg acttcccatt	2100
tgccacccgg cttcaacgag tacgacttcg tgcccagag cttcgaccgg gacaaaacca	2160
tcgccctgat catgaacagt agtggcagta ccggattgcc caaggcgta gccctaccgc	2220
accgcaccgc ttgtgtccga ttcagtcatg cccgcgacc catcttcggc aaccagatca	2280
tccccgacac cgctatcctc agcgtggtgc catttcacca cggcttcggc atgttcacca	2340
cgctgggcta cttgatctgc ggctttcggg tcgtgctcat gtaccgcttc gaggaggagc	2400
tattcttgcg cagcttgcaa gactataaga ttcaatctgc cctgctggtg cccacactat	2460
ttagcttctt cgctaagagc actctcatcg acaagtacga cctaagcaac ttgcacgaga	2520
tcgccagcgg cggggcgccg ctcagcaagg aggtaggtga ggccgtggcc aaacgcttcc	2580
acctaccagg catccgccag ggctacggcc tgacagaaac aaccagcgcc attctgatca	2640
ccccgaagg ggacgacaag cctggcgag taggcaaggt ggtgcccttc ttcgaggcta	2700
aggtggtgga cttggacacc ggtaagacac tgggtgtgaa ccagcgcggc gagctgtgcg	2760
tccgtggccc catgatcatg agcggctacg ttaacaacc cgaggctaca aacgctctca	2820
tcgacaagga cggctggctg cacagcggcg acatgccta ctgggacgag gacgagcact	2880

tcttcatcgt ggaccggctg aagagcctga tcaaatacaa gggctaccag gtagccccag	2940
ccgaactgga gagcatcctg ctgcaacacc ccaacatctt cgacgccggg gtcgccggcc	3000
tgtcccgacga cgatgccggc gagctgcccc cgcagtcgt cgtgctggaa cacggtaaaa	3060
ccatgaccga gaaggagatc gtggactatg tggccagcca ggttacaacc gccagaagc	3120
tgcgcggtgg tgttggttc gtggacgagg tgcctaaagg actgaccggc aagttggacg	3180
cccgcaagat ccgcgagatt ctcattaagg ccaagaaggg cggcaagatc gccgtgtaat	3240
tcgaaacgtc acgtccatct tgagcatctg acttctggct aaataaaaga tctttatctt	3300
cattagatct gtgtgttggt tttttgtgtg cgtcgagatc cacggccgca ggaacccta	3360
gtgatggagt tggccactcc ctctctgctg gctcgctcgc tctactgaggc cgggcgacca	3420
aaggctgccc gacgccggg ctttgcccgg gcggcctcag tgagcgagcg agcgcgagc	3480
tgcctgcagg ggcgctgat gcggtatctt ctccttacgc atctgtgcgg tatttcacac	3540
cgcatacgtc aaagcaacca tagtacgctg cctgtagcgg cgcattaagc gcggcgggtg	3600
tgggtggttac gcgcagcgtg accgctacac ttgccagcgc cctagcggc gctcctttcg	3660
ctttcttccc ttcctttctc gccacgttcg ccggctttcc ccgtcaagct ctaaatacggg	3720
ggctcccctt agggttccga tttagtgtt tacggcacct cgaccccaaa aaacttgatt	3780
tgggtgatgg ttcacgtagt gggccatcgc cctgatagac ggtttttcgc cttttgacgt	3840
tggagtccac gttctttaat agtggactct tgttccaaac tggaacaaca ctcaacccta	3900
tctcgggcta tttttttgat ttataaggga ttttgccgat ttcggcctat tggttaaaaa	3960
atgagctgat ttaacaaaaa tttaacgcga attttaacaa aatattaacg tttacaattt	4020
tatggtgcac tctcagtaca atctgctctg atgccgcata gttaagccag ccccgacacc	4080
cgccaacacc cgctgacgcg ccctgacggg cttgtctgct cccggcatcc gcttacagac	4140
aagctgtgac cgtctccggg agctgcatgt gtcagagggtt ttcaccgtca tcaccgaaac	4200
gcgcgagacg aaagggcctc gtgatacgcc tattttttata ggtaaatgtc atgataataa	4260
tggttttcta gacgtcaggt ggcacttttc ggggaaatgt gcgcggaacc cctatttgtt	4320
tattttttcta aatacatcca aatatgtatc cgctcatgag acaataaccc tgataaatgc	4380

ttcaataata ttgaaaaagg aagagtatga gtattcaaca tttccgtgtc gcccttattc	4440
ccttttttgc ggcatthttgc cttcctgttt ttgctcacc agaaacgctg gtgaaagtaa	4500
aagatgctga agatcagttg ggtgcacgag tgggttacat cgaactggat ctcaacagcg	4560
gtaagatcct tgagagtttt cgccccgaag aacgttttcc aatgatgagc actttttaaag	4620
ttctgctatg tggcgcggtt ttatcccgtt ttgacgccgg gcaagagcaa ctcggtcgcc	4680
gcatacacta ttctcagaat gacttggttg agtactcacc agtcacagaa aagcatctta	4740
cggatggcat gacagtaaga gaattatgca gtgctgcat aaccatgagt gataaactg	4800
cggccaactt acttctgaca acgatcggag gaccgaagga gctaaccgct tttttgcaca	4860
acatggggga tcatgtaact cgccttgatc gttgggaacc ggagctgaat gaagccatac	4920
caaacgacga gcgtgacacc acgatgcctg tagcaatggc aacaacgttg cgcaaactat	4980
taactggcga actacttact ctagcttccc ggcaacaatt aatagactgg atggaggcgg	5040
ataaagttgc aggaccactt ctgcgctcgg cccttccggc tggctggttt attgctgata	5100
aatctggagc cggtagcgt gggctctcgc gtatcattgc agcactgggg ccagatggta	5160
agccctcccg tatcgtagtt atctacacga cggggagtca ggcaactatg gatgaacgaa	5220
atagacagat cgctgagata ggtgcctcac tgattaagca ttggttaactg tcagaccaag	5280
tttactcata tatactttag attgatttaa aacttcattt ttaatttaaa aggatctagg	5340
tgaagatcct ttttgataat ctcatgacca aaatccctta acgtgagttt tcgttccact	5400
gagcgtcaga ccccgtagaa aagatcaaag gatcttcttg agatcctttt tttctgcgcg	5460
taatctgctg cttgcaaaca aaaaaaccac cgctaccagc ggtggtttgt ttgccggatc	5520
aagagctacc aactcttttt ccgaaggtaa ctggcttcag cagagcgcag ataccaaata	5580
ctgtccttct agttagccg tagttaggcc accacttcaa gaactctgta gcaccgccta	5640
catacctcgc tctgctaata ctgttaccag tggctgctgc cagtggcgat aagtcgtgtc	5700
ttaccgggtt ggactcaaga cgatagttac cggataaggc gcagcggctg ggctgaacgg	5760
ggggttcgtg cacacagccc agcttgagc gaacgaccta caccgaactg agatacctac	5820
agcgtgagct atgagaaagc gccacgcttc ccgaaggag aaaggcggac aggtatccgg	5880

taagcggcag ggtcgggaaca ggagagcgca cgaggagct tccaggggga aacgcctggt	5940
atctttatag tcctgtcggg tttcgccacc tctgacttga gcgtcgattt ttgtgatgct	6000
cgtcaggggg gcggagccta tggaaaaacg ccagcaacgc ggccttttta cggttcctgg	6060
ccttttgctg gccttttgct c	6081

<210> 38
 <211> 6013
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> AAV-CRE02-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 38	
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgcccgg cctcagtgag cgagcgagcg cgagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgacctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacggcc cgcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggacct gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtggcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggaggggaat gcccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccc agccgagagt agcagttgta gctaccgcc caggtagggg cgcgccacgc	600
gtcagtttac tcaccaggga ttcagaggca gactgctga accctgagcc cttggcacat	660
caggttggct gtcagaagtc ggcctttgta catacacagt tcccttgtga ggcccagctg	720
cgtgtcctag gagcggggcc tctctccaca gcagagctca gcctctcaag tgtatggaca	780
gcacgggtgc ctgatgggtg gatttagcca tgagttgaag gtggcttggg gagaatgaga	840
gttctagaga tagggagaag gggttgccaa taggagagtg gaattcctga gcacctcgtc	900
acaggcagcc gacagaacat gagccgcagg gccagggcta ttatacctc gcctgtcact	960

atcagggtcc ccacagctcc ccccacctcc agccacacac agcaggtcct tttgctcttt	1020
ctgggtccctt ctctactcct ccccctccct acctaaggta cccaacgcgt tacgtggcca	1080
ccgccttcgg caccatcctc acgacacca aatatggcga cgggtgagga atgggtgggga	1140
gttatTTTTta gagcggtag gaaggtgggc aggcagcagg tgttggcgct ctaaaaataa	1200
ctccccgggag ttatTTTTtag agcggaggaa tgggtggacac ccaaatatgg cgacggttcc	1260
tcacccgtcg ccatatTTTgg gtgtccgccc tcggccgggg ccgcattcct gggggccggg	1320
cgggtgctccc gccgcctcg ataaaaggct ccggggccgg cggcggccca cgagctaccc	1380
ggaggagcgg gaggcgcaa gctctagatc tagaaagagg taagggttta agggatggtt	1440
ggttggtggg gtattaatgt ttaattacct ggagcacctg cctgaaatca cTTTTTTca	1500
ggttggaagc ttatggaaga tgccaaaaac attaagaagg gccagcgcc attctaccca	1560
ctcgaggacg ggaccgccgg cgagcagctg cacaaagcca tgaagcgcta cgccctggtg	1620
cccggcacca tcgcctttac cgacgcacat atcgaggtgg acattaccta cgccgagtac	1680
ttcgagatga gcgttcggct ggcaagaagct atgaagcgct atgggctgaa taaaaccat	1740
cggatcgtgg tgtgcagcga gaatagcttg cagttcttca tgcccgtgtt gggtgccctg	1800
ttcatcggtg tggctgtggc ccagctaac gacatctaca acgagcgcg gctgctgaac	1860
agcatgggca tcagccagcc caccgtcgta ttcgtgagca agaaagggt gcaaaagatc	1920
ctcaacgtgc aaaagaagct accgatcata caaaagatca tcatcatgga tagcaagacc	1980
gactaccagg gcttccaaag catgtacacc ttcgtgactt cccatttgcc acccggttc	2040
aacgagtacg acttcgtgcc cgagagcttc gaccgggaca aaaccatcgc cctgatcatg	2100
aacagtagtg gcagtaccgg attgcccaag ggcgtagccc taccgcaccg caccgcttgt	2160
gtccgattca gtcatgccc cgaccccatc ttcggcaacc agatcatccc cgacaccgct	2220
atcctcagcg tggtgccatt tcaccacggc ttcggcatgt tcaccacgct gggctacttg	2280
atctgctggc ttcgggtcgt gctcatgtac cgcttcgagg aggagctatt cttgcgcagc	2340
ttgcaagact ataagattca atctgccctg ctgggtgcca cactatttag cttcttcgct	2400
aagagcactc tcatcgaaa gtacgaccta agcaacttgc acgagatcgc cagcggcggg	2460

gcgccgctca gcaaggaggt aggtgaggcc gtggccaaac gcttccacct accaggcatc	2520
cgccagggct acggcctgac agaaacaacc agcgccattc tgatcacccc cgaaggggac	2580
gacaagcctg gcgcagtagg caagggtggtg cccttcttcg aggctaaggt ggtggacttg	2640
gacaccggta agacactggg tgtgaaccag cgcggcgagc tgtgcgtccg tggcccatg	2700
atcatgagcg gctacgttaa caaccccgag gctacaaacg ctctcatcga caaggacggc	2760
tggctgcaca gcggcgacat cgcctactgg gacgaggacg agcacttctt catcgtggac	2820
cggctgaaga gcctgatcaa atacaagggc taccaggtag cccagccga actggagagc	2880
atcctgctgc aacaccccaa catcttcgac gccggggtcg ccggcctgcc cgacgacgat	2940
gccggcgagc tgcccgcgc agtcgtcgtg ctggaacacg gtaaaaccat gaccgagaag	3000
gagatcgtgg actatgtggc cagccagggtt acaaccgcca agaagctgcg cgggtggtgtt	3060
gtgttcgtgg acgagggtcc taaaggactg accggcaagt tggacgcccg caagatccgc	3120
gagattctca ttaaggccaa gaaggcggc aagatcgccg tgtaattcga aacgtcaagt	3180
ccatcttgag catctgactt ctggctaaat aaaagatctt tattttcatt agatctgtgt	3240
gttggttttt tgtgtgcgtc gagatccacg gccgcaggaa cccctagtga tggagttaggc	3300
cactccctct ctgcgcgtc gctcgtcac tgaggccggg cgaccaaagg tcgcccgcg	3360
cccgggcttt gcccggcgcg cctcagttag cgagcgagcg cgagctgcc tgcagggcg	3420
cctgatgcgg tattttctcc ttacgcatct gtgcggtatt tcacaccgca tacgtcaaag	3480
caaccatagt acgcgccctg tagcggcgca ttaagcgcg cggtgtggt ggttacgcgc	3540
agcgtgaccg ctacacttgc cagcgcccta gcgcccgtc ctttcgcttt cttcccttcc	3600
tttctcgcca cgttcgccgg ctttcccgt caagctctaa atcgggggct ccctttaggg	3660
ttccgattta gtgctttacg gcacctcgac ccaaaaaaac ttgatttggg tgatggttca	3720
cgtagtgggc catcgccctg atagacggtt tttcgccctt tgacgttgga gtccacgttc	3780
tttaatagtg gactcttggt ccaaactgga acaacactca accctatctc gggctattct	3840
tttgatttat aagggatttt gccgatttcg gcctattggt taaaaaatga gctgatttaa	3900
caaaaattta acgcgaattt taacaaaata ttaacgttta caattttatg gtgcactctc	3960

agtacaatct gctctgatgc cgcatagtta agccagcccc gacacccgcc aacacccgct	4020
gacgcgccct gacgggcttg tctgctcccg gcatccgctt acagacaagc tgtgaccgtc	4080
tccgggagct gcatgtgtca gaggttttca ccgtcatcac cgaaacgcgc gagacgaaag	4140
ggcctcgtga tacgcctatt tttatagggt aatgtcatga taataatggt ttcttagacg	4200
tcagggtggca cttttcgggg aaatgtgcmc ggaacccta tttgtttatt tttctaaata	4260
cattcaaata tgtatccgct catgagacaa taaccctgat aaatgcttca ataatttga	4320
aaaaggaaga gtatgagtat tcaacatttc cgtgtcgccc ttattccctt ttttgcggca	4380
ttttgccttc ctgtttttgc tcaccagaa acgctggtga aagtaaaaga tgctgaagat	4440
cagttgggtg cacgagtggg ttacatcgaa ctggatctca acagcggtaa gatccttgag	4500
agttttcgcc ccgaagaacg ttttccaatg atgagcactt ttaaagtctt gctatgtggc	4560
gcggtattat cccgtattga cgccgggcaa gagcaactcg gtcgccgcat acactattct	4620
cagaatgact tggttgagta ctcaccagtc acagaaaagc atcttacgga tggcatgaca	4680
gtaagagaat tatgcagtgc tgccataacc atgagtgata acactgcggc caacttactt	4740
ctgacaacga tcggaggacc gaaggagcta accgcttttt tgcacaacat gggggatcat	4800
gtaactcgcc ttgatcgttg ggaaccggag ctgaatgaag ccataccaaa cgacgagcgt	4860
gacaccacga tgcctgtagc aatggcaaca acgttgcgca aactattaac tggcgaacta	4920
cttactctag cttcccggca acaattaata gactggatgg aggcggataa agttgcagga	4980
ccacttctgc gctcggccct tccggctggc tggttttattg ctgataaatc tggagccggt	5040
gagcgtgggt ctcgcggtat cattgcagca ctggggccag atggtaagcc ctcccgtatc	5100
gtagttatct acacgacggg gagtcaggca actatggatg aacgaaatag acagatcgct	5160
gagatagggt cctcactgat taagcattgg taactgtcag accaagttta ctcatatata	5220
ctttagattg atttaaaact tcatttttaa tttaaaagga tctaggtgaa gatccttttt	5280
gataatctca tgacaaaaat cccttaacgt gagttttcgt tccactgagc gtcagacccc	5340
gtagaaaaga tcaaaggatc ttcttgagat cttttttttc tgcgcgtaat ctgctgcttg	5400
caaacaaaaa aaccaccgct accagcgggt gtttgtttgc cggatcaaga gctaccaact	5460

ctttttccga aggtaactgg cttcagcaga gcgcagatac caaatactgt ctttctagt	5520
tagccgtagt taggccacca cttcaagaac tctgtagcac cgcctacata cctcgctctg	5580
ctaactctgt taccagtggc tgctgccagt ggcgataagt cgtgtcttac cgggttggac	5640
tcaagacgat agttaccgga taaggcgag cggtcgggct gaacggggggg ttcgtgcaca	5700
cagcccagct tggagcgaac gacctacacc gaactgagat acctacagcg tgagctatga	5760
gaaagcgcca cgcttcccga agggagaaaag gcggacaggt atccggtaag cggcagggtc	5820
ggaacaggag agcgcacgag ggagcttcca gggggaaacg cctggatatct ttatagtcct	5880
gtcgggtttc gccacctctg acttgagcgt cgatTTTTgt gatgctcgtc aggggggcgg	5940
agcctatgga aaaacgccag caacgcggcc tttttacggt tcctggcctt ttgctggcct	6000
tttgctcaca tgt	6013

<210> 39
 <211> 6502
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> AAV-CRE06-CRE04-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 39	
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgctg ggcgaccttt	60
ggtcgcccgg cctcagttag cgagcgagcg cgagagagg gaggggccaa ctccatcact	120
aggggttcct gcggccgggc caggggacgg tggcttctac gtgcttggga cgttcccagc	180
caccgtccca tgttcccggc ggggggcccag ctgtccccac cgccagccca actcagcact	240
tggtcagggt atcagcttgg tgggggggcg tgagcccagc ccctggggcg gctcagccca	300
tacaaggcca tggggctggg cgcaaagcat gcctgggttc aggggtgggta tggcgcggga	360
gcagggaggt gagaggctca gctgccctcc agaactcctc cctggggaca acccctccca	420
gccaatagca cagcctaggt ccccctatat aaggccacgg ctgctggccc ttcctttggg	480
tcagtgtcac ctccaggata cagacagccc cccttcagcc cagcccagcc aggtacggcg	540
cgccgtcgac ggatcccctt ttagagaatc cacacctgtc ccagttgctg gggtccacta	600

ccaaaagtga attgcaacta ttttaggagc acttaagcac atccgaaaaa tgagtgattc	660
tgttctggcc cacaccacat cactgatgta cccccttaaa gcatgtccct gagttcatca	720
cagaagactg ctcctcctgt gccctccaca aggttagaac tgtccttgtc ttagggaaaa	780
aggagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagggacagg	840
caccaactgg gtaacctctg ctgaccccca ctctacttta ccataagtag ctccaaatcc	900
ttctagaaaa tctgaaaggc atagcccat atatcagtga tataaataga acctgcagca	960
ggctctggta aatgatgact acaaggtgga ctgggaggca gcccggcctt ggcaggcatc	1020
atcctctaaa tataaagatg agtttgttca gcctttgcag aaggaggatc cgtcgacggc	1080
gcgccacgcg tcagtttact caccagggat tcagaggcag cactgctgaa ccctgagccc	1140
ttggcacatc aggttggctg tcagaagtcg gcctttgtac atacacagtt cccttgtgag	1200
gccagctgc gtgtcctagg agcggggcct ctctccacag cagagctcag cctctcaagt	1260
gtatggacag cacgggtgcc tgatgggtgg atttagccat gagttgaagg tggcttgggg	1320
agaatgagag ttctagagat agggagaagg ggttgccaat aggagagtgg aattcctgag	1380
cacctgtca caggcagccg acagaacatg agccgcaggg cccaggctat ttatacctcg	1440
cctgtcacta tcagggtccc cacagctccc cccacctcca gccacacaca gcaggtcctt	1500
ttgctctttc tgggtccctt tctactctc cccctcccta cctaaggtag ccaacgcgtt	1560
acgtggccac cgccttcggc accatcctca cgacacccaa atatggcgac gggtagaggaa	1620
tggtaggggag ttatttttag agcggtagagg aaggtagggca ggcagcaggt gttggcgctc	1680
taaaaataac tcccgggagt tattttttaga gcggaggaat ggtggacacc caaatatggc	1740
gacggttcct caccgtcgc catatttggg tgtccgcctt cggccggggc cgcattcctg	1800
ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc ggcggccac	1860
gagctacccg gaggagcggg aggcgccaag ctctagatct agaaagaggt aagggtttaa	1920
gggatgggtg gttggtgggg tattaatgtt taattacctg gagcacctgc ctgaaatcac	1980
tttttttcag gttggaagct tatggaagat gccaaaaaca ttaagaaggg cccagcgcca	2040
ttctaccac tcgaggacgg gaccgccggc gagcagctgc acaaagccat gaagcgctac	2100

gccctggtgc ccggcaccat cgcctttacc gacgcacata tcgaggtgga cattacctac	2160
gccgagtact tcgagatgag cgttcggctg gcagaagcta tgaagcgcta tgggctgaat	2220
acaaaccatc ggatcgtggt gtgcagcgag aatagcttgc agttcttcat gcccggtgtg	2280
ggtgccctgt tcatcggtgt ggctgtggcc ccagctaacg acatctacaa cgagcgcgag	2340
ctgctgaaca gcatgggcat cagccagccc accgtcgtat tcgtgagcaa gaaagggctg	2400
caaaagatcc tcaacgtgca aaagaagcta ccgatcatac aaaagatcat catcatggat	2460
agcaagaccg actaccaggg cttccaaagc atgtacacct tcgtgacttc ccatttgcca	2520
cccggcttca acgagtacga cttcgtgccc gagagcttcg accgggacaa aaccatcgcc	2580
ctgatcatga acagtagtgg cagtaccgga ttgcccaagg gcgtagccct accgcaccgc	2640
accgcttgtg tccgattcag tcatgcccgc gaccccatct tcggcaacca gatcatcccc	2700
gacaccgcta tcctcagcgt ggtgccattt caccacggct tcggcatgtt caccacgctg	2760
ggctacttga tctgcggctt tcgggtcgtg ctcatgtacc gcttcgagga ggagctattc	2820
ttgcgcagct tgcaagacta taagattcaa tctgccctgc tgggtgccac actatttagc	2880
ttcttcgcta agagcactct catcgacaag tacgacctaa gcaacttgca cgagatcgcc	2940
agcggcgggg cgccgctcag caaggaggta ggtgaggccg tggccaaacg cttccaccta	3000
ccaggcatcc gccagggcta cggcctgaca gaaacaacca gcgccattct gatcaccccc	3060
gaaggggacg acaagcctgg cgcagtaggc aagggtggtgc ctttcttcga ggctaaggtg	3120
gtggacttgg acaccggtaa gacactgggt gtgaaccagc gcggcgagct gtgcgtccgt	3180
ggcccatga tcatgagcgg ctacgttaac aaccccgagg ctacaaacgc tctcatcgac	3240
aaggacggct ggctgcacag cggcgacatc gcctactggg acgaggacga gcatttcttc	3300
atcgtggacc ggctgaagag cctgatcaaa tacaagggt accaggtagc cccagccgaa	3360
ctggagagca tcctgctgca acacccaac atcttcgacg ccggggtcgc cggcctgccc	3420
gacgacgatg ccggcgagct gcccgccgca gtcgtcgtgc tggaacacgg taaaaccatg	3480
accgagaagg agatcgtgga ctatgtggcc agccaggtta caaccgcaa gaagctgcgc	3540
ggtggtgttg tgttcgtgga cgagggtgcct aaaggactga ccggcaagtt ggacgcccgc	3600

aagatccgcg agattctcat taaggccaag aagggcggca agatcgccgt gtaattcgaa	3660
acgtctagtc catcttgagc atctgacttc tggctaaata aaagatcttt attttcatta	3720
gatctgtgtg ttgggttttt gtgtgcgtcg agatccacgg ccgcaggaac ccctagtgat	3780
ggagttaggc actccctctc tgcgcgctcg ctcgctcact gaggcgggc gaccaaaggt	3840
cggccgacgc ccgggctttg cccgggcggc ctgagtgagc gagcgagcgc gcagctgcct	3900
gcaggggcgc ctgatgcggt attttctcct tacgcatctg tgcggtatth cacaccgcat	3960
acgtcaaagc aaccatagta cgcgccctgt agcggcgcgc taagcgcggc ggggtgtggtg	4020
gttacgcgca gcgtgaccgc tacacttgcc agcgccttag cggccgctcc tttcgctttc	4080
ttcccttcct ttctcgccac gttcgccggc tttccccgtc aagctctaaa tcgggggctc	4140
cctttagggt tccgatttag tgctttacgg cacctcgacc ccaaaaaact tgatttggtt	4200
gatggttcac gtagtgggcc atcgccctga tagacggttt ttcgcccttt gacgttgag	4260
tccacgttct ttaatagtgg actcttggtc caaactggaa caacactcaa ccctatctcg	4320
ggctattctt ttgatttata agggattht ccgatttcgg cctattgggt aaaaaatgag	4380
ctgatttaac aaaaatttaa cgcgaattht aacaaaatat taacgtttac aattttatgg	4440
tgcactctca gtacaatctg ctctgatgcc gcatagttaa gccagccccg acacccgcca	4500
acacccgctg acgcgccctg acgggcttgt ctgctcccgg catccgctta cagacaagct	4560
gtgaccgtct ccgggagctg catgtgtcag aggttttcac cgtcatcacc gaaacgcgcg	4620
agacgaaagg gcctcgtgat acgcctatth ttataggtha atgtcatgat aataatgggt	4680
tcttagacgt caggtagcac ttttcgggga aatgtgcgcg gaaccctat ttgtttatth	4740
ttctaaatac attcaaatat gtatccgctc atgagacaat aaccctgata aatgcttcaa	4800
taatattgaa aaaggaagag tatgagtatt caacatthc gtgtcgccct tattccctth	4860
tttgcggcat tttgcctthc tgthtttgct caccagaaa cgctggtgaa agtaaaagat	4920
gctgaagatc agttgggtgc acgagtgggt tacatcgaac tggatctcaa cagcggtaag	4980
atccttgaga gttttcgccc cgaagaacgt tttccaatga tgagcactth taaagttctg	5040
ctatgtggcg cggtattatc ccgtattgac gccgggcaag agcaactcgg tcgccgcata	5100

cactattctc agaatgactt gggtgagtac tcaccagtca cagaaaagca tcttacggat	5160
ggcatgacag taagagaatt atgcagtgct gccataacca tgagtgataa cactgcggcc	5220
aacttacttc tgacaacgat cggaggaccg aaggagctaa ccgctttttt gcacaacatg	5280
ggggatcatg taactcgcct tgatcgttgg gaaccggagc tgaatgaagc cataccaaac	5340
gacgagcgtg acaccacgat gcctgtagca atggcaacaa cgttgcgcaa actattaact	5400
ggcgaactac ttactctagc ttcccggcaa caattaatag actggatgga ggcggataaa	5460
gttgcaggac cacttctgcg ctcggccctt ccggctggct ggttttattgc tgataaatct	5520
ggagccggtg agcgtgggtc tcgcggtatc attgcagcac tggggccaga tggtaagccc	5580
tcccgtatcg tagttatcta cacgacgggg agtcaggcaa ctatggatga acgaaataga	5640
cagatcgctg agataggtgc ctactgatt aagcattggg aactgtcaga ccaagtttac	5700
tcatatatac tttagattga tttaaaactt cttttttaat ttaaaaggat ctaggtgaag	5760
atcctttttg ataatctcat gaccaaatac ccttaacgtg agttttcgtt ccactgagcg	5820
tcagaccccc tagaaaagat caaaggatct tcttgagatc ctttttttct gcgcgtaatc	5880
tgctgcttgc aaacaaaaaa accaccgcta ccagcgggtg tttgtttgcc ggatcaagag	5940
ctaccaactc tttttccgaa ggtaactggc ttcagcagag cgcagatacc aaatactgtc	6000
cttctagtgt agccgtagtt aggccaccac ttcaagaact ctgtagcacc gcctacatac	6060
ctcgctctgc taatcctgtt accagtggct gctgccagtg gcgataagtc gtgtcttacc	6120
gggttggact caagacgata gttaccggat aaggcgcagc ggtcgggctg aacgggggggt	6180
tcgtgcacac agcccagctt ggagcgaacg acctacaccg aactgagata cctacagcgt	6240
gagctatgag aaagcgccac gttcccga gggagaaagg cggacaggta tccggtaagc	6300
ggcagggctc gaacaggaga gcgcacgagg gagcttccag ggggaaacgc ctggtatctt	6360
tatagtcctg tcgggtttcg ccacctctga cttgagcgtc gatTTTTgtg atgctcgtca	6420
ggggggcgga gcctatggaa aaacgccagc aacgcggcct ttttacggtt cctggccttt	6480
tgctggcctt ttgctcacat gt	6502

<211> 6513
<212> DNA
<213> Secuencia Artificial

<220>
<223> AAV-CRE04-CRE06-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 40
acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg 60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcg c agagagggag 120
tggccaactc catcactagg ggttcctgcg gcccctttta gagaatccac acctgtccca 180
gttgctgggt tccactacca aaagtgaatt gcaactat tt taggagcact taagcacatc 240
cgaaaaatga gtgattctgt tctggcccac accacatcac tgatgtaccc ctttaaagca 300
tgtccctgag ttcacacag aagactgctc ctctgtgcc ctccacaagg ttagaactgt 360
ccttgtctta gggaaaaagg agagagagag agagagagag agagagagag agagagagag 420
agagagagag ggacaggcac caactgggta acctctgctg acccccactc tactttacca 480
taagtagctc caaatccttc tagaaaatct gaaaggcata gccccatata tcagtgatat 540
aaatagaacc tgcagcaggc tctggtaa at gatgactaca aggtggactg ggaggcagcc 600
cggccttggc aggcatcatc ctctaaatat aaagatgagt ttgttcagcc tttgcagaag 660
gaggcgcgcc gtcgacggat ccgggccagg ggacgggtggc ttctacgtgc ttgggacgtt 720
cccagccacc gtcccatgtt cccggcgggg ggccagctgt cccaccgcc agcccaactc 780
agcacttgggt cagggtatca gcttggtggg ggggcgtgag cccagcccct ggggcggctc 840
agcccataca aggccatggg gctgggcgca aagcatgcct gggttcaggg tgggtatggt 900
gcgggagcag ggaggtgaga ggctcagctg ccctccagaa ctctccctg gggacaaccc 960
ctcccagcca atagcacagc ctaggtcccc ctatataagg ccacggctgc tggcccttcc 1020
tttgggtcag tgtcacctcc aggatacaga cagccccct tcagcccagc ccagccaggt 1080
acggatccgt cgacggcgcg ccacgcgtca gtttactcac cagggtattca gaggcagcac 1140
tgctgaaccc tgagcccttg gcacatcagg ttggctgtca gaagtcggcc tttgtacata 1200
cacagttccc ttgtgaggcc cagctgcgtg tcctaggagc ggggcctctc tccacagcag 1260

agctcagcct ctcaagtgtg tggacagcac gggcgcctga tgggtggatt tagccatgag	1320
ttgaaggtgg cttggggaga atgagagttc tagagatagg gagaaggggt tgccaatagg	1380
agagtggaaat tcctgagcac ctctgtcacag gcagccgaca gaacatgagc cgcagggccc	1440
aggctattta tacctcgcct gtcactatca gggcctccac agctcccccc acctccagcc	1500
acacacagca ggtccttttg ctctttcttg tcccttctct actcctcccc ctccctacct	1560
aaggtaccca acgcgttacg tggccaccgc cttcggcacc atcctcacga cacccaaata	1620
tggcgacggg tgaggaatgg tggggagtta ttttagagc ggtgaggaag gtgggcaggc	1680
agcaggtgtt ggcgctctaa aaataactcc cgggagttat ttttagagcg gaggaatggt	1740
ggacacccaa atatggcgac ggttcctcac ccgtcgccat atttgggtgt ccgccctcgg	1800
ccggggccgc attcctgggg gccgggcggg gctcccgccc gcctcgataa aaggctccgg	1860
ggccggcggc ggcccacgag ctaccggag gagcgggagg cgccaagctc tagatctaga	1920
aagaggtaaag ggtttaaggg atggttggtt ggtggggtat taatgtttaa ttacctggag	1980
cacctgcctg aaatcacttt ttttcagggtt ggaagcttat ggaagatgcc aaaaacatta	2040
agaagggccc agcgccattc taccactcg aggacgggac cgccggcgag cagctgcaca	2100
aagccatgaa gcgctacgcc ctggtgcccc gcaccatcgc ctttaccgac gcacatatcg	2160
aggcggacat tacctacgcc gactacttcg agatgagcgt tcggctggca gaagctatga	2220
agcgctatgg gctgaataca aaccatcgga tcgtggtgtg cagcgagaat agcttgagct	2280
tcttcatgcc cgtgttggtt gccctgttca tcggtgtggc tgtggcccca gctaacgaca	2340
tctacaacga gcgcgagctg ctgaacagca tgggcatcag ccagcccacc gtcgtattcg	2400
tgagcaagaa agggctgcaa aagatcctca acgtgcaaaa gaagctaccg atcatacaaa	2460
agatcatcat catggatagc aagaccgact accagggtt ccaaagcatg tacaccttcg	2520
tgacttcca tttgccaccc ggcttcaacg agtacgactt cgtgcccagag agcttcgacc	2580
gggacaaaac catcgccctg atcatgaaca gtagtggcag taccggattg cccaagggcg	2640
tagccctacc gcaccgcacc gcttgtgtcc gattcagtca tgcccgcgac cccatcttcg	2700
gcaaccagat catccccgac accgctatcc tcagcgtggt gccatttcac cacggcttcg	2760

gcatgttcac cacgctgggc tacttgatct gcggctttcg ggtcgtgctc atgtaccgct	2820
tcgaggagga gctattcttg cgcagcttgc aagactataa gattcaatct gccctgctgg	2880
tgcccacact atttagcttc ttcgctaaga gcactctcat cgacaagtac gacctaagca	2940
acttgcacga gatcgccagc ggcgggg'gcgc cgctcagcaa ggaggtaggt gaggccgtgg	3000
ccaaacgctt ccacctacca ggcatccgcc agggctacgg cctgacagaa acaaccagcg	3060
ccattctgat cacccccga ggggacgaca agcctggcgc agtaggcaag gtggtgccct	3120
tcttcgaggc taagggtggtg gacttggaca ccggtgaagac actgggtgtg aaccagcgcg	3180
gcgagctgtg cgtccgtggc cccatgatca tgagcggcta cgttaacaac cccgaggcta	3240
caaacgctct catcgacaag gacggctggc tgcacagcgg cgacatcgcc tactgggacg	3300
aggacgagca cttcttcatc gtggaccggc tgaagagcct gatcaaatac aagggtacc	3360
aggtagcccc agccgaactg gagagcatcc tgctgaaca ccccaacatc ttcgacgccg	3420
gggtcgccgg cctgcccac gacgatgccg gcgagctgcc cgccgcagtc gtcgtgctgg	3480
aacacggtaa aaccatgacc gagaaggaga tcgtggacta tgtggccagc caggttacia	3540
ccgccaagaa gctgcgcggt ggtgttgtgt tcgtggacga ggtgcctaaa ggactgaccg	3600
gcaagttgga cgcccgaag atccgcgaga ttctcattaa ggccaagaag ggcggcaaga	3660
tcgccgtgta attcgaaacg tcacgtccat cttgagcatc tgacttctgg ctaaataaaa	3720
gatctttatt ttcattagat ctgtgtgttg gttttttgtg tgcgtcgaga tccacggccg	3780
caggaacccc tagtgatgga gttggccact ccctctctgc gcgctcgctc gctcactgag	3840
gccggg'gcac caaaggcgc ccgacgccc ggctttgccc gggcggcctc agtgagcgag	3900
cgagcgcgca gctgcctgca ggggcgcctg atgcggtatt ttctccttac gcatctgtgc	3960
ggtattttcac accgcatacg tcaaagcaac catagtacgc gccctgtagc ggcgcattaa	4020
gcgcggcggg tgtggtggtt acgcgcagcg tgaccgctac acttgccagc gccctagcgc	4080
ccgctccttt cgctttcttc ccttcctttc tcgccacgtt cgccggcttt ccccgtaag	4140
ctctaaatcg ggggctccct ttagggttcc gatttagtgc tttacggcac ctcgacccca	4200
aaaaacttga tttgggtgat ggttcacgta gtgggccatc gccctgatag acggtttttc	4260

gccctttgac gttggagtcc acgttcttta atagtggact cttgttccaa actggaacaa	4320
cactcaaccc tatctcgggc tattcttttg atttataagg gattttgccg atttcggcct	4380
attggttaaa aaatgagctg atttaacaaa aatttaacgc gaattttaac aaaatattaa	4440
cgtttacaat tttatggtgc actctcagta caatctgctc tgatgccgca tagttaagcc	4500
agccccgaca cccgccaaca cccgctgacg cgccctgacg ggcttgtctg ctcccggcat	4560
ccgcttacag acaagctgtg accgtctccg ggagctgcat gtgtcagagg ttttcaccgt	4620
catcaccgaa acgcgcgaga cgaaagggcc tcgtgatacg cctattttta taggttaatg	4680
tcatgataat aatggtttct tagacgtcag gtggcacttt tcggggaaat gtgcgcggaa	4740
cccctatttg tttatttttc taaatacatt caaatatgta tccgctcatg agacaataac	4800
cctgataaat gcttcaataa tattgaaaaa ggaagagtat gagtattcaa catttccgtg	4860
tcgcccttat tccctttttt gcggcatttt gccttcctgt ttttgctcac ccagaaacgc	4920
tggtgaaaagt aaaagatgct gaagatcagt tgggtgcacg agtgggttac atcgaactgg	4980
atctcaacag cggtaaagatc cttgagagtt ttcgccccga agaacgtttt ccaatgatga	5040
gcacttttaa agttctgcta tgtggcgcgg tattatcccg tattgacgcc gggcaagagc	5100
aactcggtcg ccgcatacac tattctcaga atgacttggg tgagtactca ccagtcacag	5160
aaaagcatct tacggatggc atgacagtaa gagaattatg cagtgtgcc ataaccatga	5220
gtgataacac tgcggccaac ttacttctga caacgatcgg aggaccgaag gagctaaccg	5280
cttttttgca caacatgggg gatcatgtaa ctgccttgga tcgttgggaa ccggagctga	5340
atgaagccat accaaaacgac gagcgtgaca ccacgatgcc tgtagcaatg gcaacaacgt	5400
tgcgcaaact attaaactggc gaactactta ctctagcttc ccggcaacaa ttaatagact	5460
ggatggaggc ggataaagtt gcaggaccac ttctgcgctc ggcccttccg gctggctggg	5520
ttattgctga taaatctgga gccggtgagc gtgggtctcg cggtatcatt gcagcactgg	5580
ggccagatgg taagccctcc cgtatcgtag ttatctacac gacggggagt caggcaacta	5640
tggatgaacg aaatagacag atcgctgaga taggtgcctc actgattaag cattggtaac	5700
tgtcagacca agtttactca tatatacttt agattgattt aaaacttcat ttttaattta	5760

aaaggatcta ggtgaagatc ctttttgata atctcatgac caaaatccct taacgtgagt	5820
tttcgttcca ctgagcgtca gaccccgtag aaaagatcaa aggatcttct tgagatcctt	5880
tttttctgcg cgtaatctgc tgcttgcaaa caaaaaaacc accgctacca gcggtggttt	5940
gtttgccgga tcaagagcta ccaactcttt ttccgaaggt aactggcttc agcagagcgc	6000
agataccaaa tactgtcctt ctagtgtagc cgtagttagg ccaccacttc aagaactctg	6060
tagcaccgcc tacatacctc gctctgctaa tcctgttacc agtggctgct gccagtggcg	6120
ataagtcgtg tcttaccggg ttggactcaa gacgatagtt accggataag gcgcagcgg	6180
cgggctgaac ggggggttcg tgcacacagc ccagcttgga gcgaacgacc tacaccgaac	6240
tgagatacct acagcgtgag ctatgagaaa gcgccacgct tcccgaaggg agaaaggcgg	6300
acaggatatcc ggtaagcggc agggctcgaa caggagagcg cacgaggag cttccagggg	6360
gaaacgcctg gtatctttat agtcctgtcg ggtttcgcca cctctgactt gagcgtcgat	6420
ttttgtgatg ctcgtcaggg gggcggagcc tatggaaaaa cgccagcaac gcggcctttt	6480
tacggttcct ggccttttgc tggccttttg ctc	6513

<210> 41
 <211> 6445
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> AAV-CRE02-CRE06-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 41	
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt	60
ggtcgccccg cctcagttag cgagcgagcg cgcagagagg gagtggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgacctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacggcc cgcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtgcc aacacccaaa tatggctcga gaagggcagc	420

gacattcctg cggggtggcg cggaggggaat gcccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccagggcccc agccgagagt agcagttgta gctacccgcc caggtagggg cgcgccgtcg	600
acggatccgg gccaggggac ggtggcttct acgtgcttgg gacgttccca gccaccgtcc	660
catgttcccc gcggggggcc agctgtcccc accgccagcc caactcagca cttggtcagg	720
gtatcagctt ggtggggggg cgtgagccca gcccctgggg cggctcagcc catacaaggc	780
catggggctg ggcgcaaagc atgcctgggt tcagggtggg tatggtgcgg gagcagggag	840
gtgagaggct cagctgccct ccagaactcc tccctgggga caaccctcc cagccaatag	900
cacagcctag gtccccctat ataaggccac ggctgctggc ctttcctttg ggtcagtgtc	960
acctccagga tacagacagc cccccttcag ccagcccag ccaggtacgg atccgtcgac	1020
ggcgcgccac gcgtcagttt actcaccagg gattcagagg cagcactgct gaaccctgag	1080
cccttggcac atcaggttgg ctgtcagaag tcggcctttg tacatacaca gttcccttgt	1140
gaggcccagc tgcgtgtcct aggagcgggg cctctctcca cagcagagct cagcctctca	1200
agtgtatgga cagcacgggt gcctgatggg tggatttagc catgagttga aggtggcttg	1260
gggagaatga gagttctaga gatagggaga aggggttgcc aataggagag tggaattcct	1320
gagcacctcg tcacaggcag ccgacagaac atgagccgca gggcccaggc tatttataacc	1380
tcgcctgtca ctatcagggt ccccacagct ccccccacct ccagccacac acagcaggtc	1440
cttttgtctt ttctgggtccc ttctctactc ctccccctcc ctacctaagg tacccaacgc	1500
gttacgtggc caccgccttc ggcaccatcc tcacgacacc caaatatggc gacgggtgag	1560
gaatggtggg gagttatttt tagagcgggt aggaaggtgg gcaggcagca ggtgttggcg	1620
ctctaaaaat aactcccggg agttatTTTT agagcggagg aatggtggac acccaaatat	1680
ggcgacggtt cctcaccgt cgccatattt ggggtgtccgc cctcggccgg ggccgcattc	1740
ctggggggccg ggcggtgctc ccgcccgcct cgataaaaagg ctccggggcc ggcggcggcc	1800
cacgagctac ccggaggagc gggaggcgcc aagctctaga tctagaaaga ggtaagggtt	1860
taagggatgg ttggttgggt gggtattaat gtttaattac ctggagcacc tgcctgaaat	1920

cacttttttt caggttggaa gcttatggaa gatgccaaaa acattaagaa gggcccagcg	1980
ccattctacc cactcgagga cgggaccgcc ggcgagcagc tgcacaaagc catgaagcgc	2040
tacgccctgg tgcccggcac catcgccttt accgacgcac atatcgaggt ggacattacc	2100
tacgccgagt acttcgagat gagcgttcgg ctggcagaag ctatgaagcg ctatgggctg	2160
aatacaaacc atcggatcgt ggtgtgcagc gagaatagct tgcagttctt catgcccgtg	2220
ttgggtgccc tgttcacggt tgtggctgtg gccccagcta acgacatcta caacgagcgc	2280
gagctgctga acagcatggg catcagccag cccaccgtcg tattcgtgag caagaaaggg	2340
ctgcaaaaga tcctcaacgt gcaaaagaag ctaccgatca taaaaagat catcatcatg	2400
gatagcaaga ccgactacca gggcttccaa agcatgtaca ccttcgtgac ttcccatttg	2460
ccacccggct tcaacgagta cgacttcgtg cccgagagct tcgaccggga caaaaccatc	2520
gccctgatca tgaacagtag tggcagtacc ggattgcccaggggcgtagc cctaccgcac	2580
cgcaccgctt gtgtccgatt cagtcatgcc cgcgacccca tcttcggcaa ccagatcatc	2640
cccgacaccg ctatcctcag cgtgggtgcca tttcaccacg gcttcggcat gttcaccacg	2700
ctgggctact tgatctgcgg ctttcgggtc gtgctcatgt accgcttcga ggaggagcta	2760
ttcttgcgca gcttgcaaga ctataagatt caatctgccc tgctgggtgcc cacactattt	2820
agcttcttcg ctaagagcac tctcatcgac aagtacgacc taagcaactt gcacgagatc	2880
gccagcggcg gggcgccgct cagcaaggag gtaggtgagg ccgtggccaa acgcttcac	2940
ctaccaggca tccgccaggg ctacggcctg acagaaacaa ccagcgccat tctgatcacc	3000
cccgaagggg acgacaagcc tggcgagta ggcaaggtgg tgcccttctt cgaggctaag	3060
gtgggtggact tggacaccgg taagacactg ggtgtgaacc agcgcggcga gctgtgcgtc	3120
cgtggcccca tgatcatgag cggctacgtt aacaaccccg aggctacaaa cgctctcatc	3180
gacaaggacg gctggctgca cagcggcgac atcgcctact gggacgagga cgagcacttc	3240
ttcatcgtgg accggctgaa gagcctgatc aaatacaagg gctaccaggt agccccagcc	3300
gaactggaga gcatcctgct gcaacacccc aacatcttcg acgccgggggt cgccggcctg	3360
cccgacgacg atgccggcga gctgcccgcc gcagtcgtcg tgctggaaca cggtaaaacc	3420

atgaccgaga aggagatcgt ggactatgtg gccagccagg ttacaaccgc caagaagctg	3480
cgcggtggtg ttgtgttcgt ggacgaggtg cctaaaggac tgaccggcaa gttggacgcc	3540
cgcaagatcc gcgagattct cattaaggcc aagaaggcg gcaagatcgc cgtgtaattc	3600
gaaacgtcaa gtccatcttg agcatctgac ttctggctaa ataaaagatc tttattttca	3660
ttagatctgt gtgttggttt tttgtgtgcg tcgagatcca cggccgcagg aaccctagt	3720
gatggagttg gccactccct ctctgcgcgc tcgctcgctc actgaggccg ggcgacaaaa	3780
ggtcgcccga cgcccgggct ttgcccgggc ggccctcagt agcgagcgag cgcgagctg	3840
cctgcagggg cgctgatgc ggtattttct ccttacgcat ctgtgcggtt tttcacaccg	3900
catacgtcaa agcaaccata gtacgcgccc tgtagcggcg cattaagcgc ggcgggtgtg	3960
gtggttacgc gcagcgtgac cgctacactt gccagcgccc tagcgcccgc tcctttcgct	4020
ttcttccctt cctttctcgc cacgttcgcc ggctttcccc gtcaagctct aaatcggggg	4080
ctccctttag ggttccgatt tagtgcttta cggcacctcg acccaaaaaa acttgatttg	4140
ggtgatggtt cacgtagtgg gccatcgccc tgatagacgg tttttcgccc tttgacgttg	4200
gagtccacgt tctttaatag tggactcttg ttccaaactg gaacaacact caaccctatc	4260
tcgggctatt cttttgattt ataagggtt ttgccgattt cggcctattg gttaaaaaat	4320
gagctgattt aacaaaaatt taacgcgaat ttttaacaaa tattaacgtt tacaatttta	4380
tggtgcactc tcagtacaat ctgctctgat gccgcatagt taagccagcc ccgacacccg	4440
ccaacacccg ctgacgcgcc ctgacgggct tgtctgctcc cggcatccgc ttacagacaa	4500
gctgtgaccg tctccgggag ctgcatgtgt cagaggtttt caccgtcatc accgaaacgc	4560
gcgagacgaa agggcctcgt gatacgcta tttttatagg ttaatgtcat gataataatg	4620
gtttcttaga cgtcaggtgg cacttttcgg ggaaatgtgc gcggaacccc tatttgttta	4680
tttttctaaa tacattcaaa tatgtatccg ctcatgagac aataaccctg ataaatgctt	4740
caataatatt gaaaaaggaa gagtatgagt attcaacatt tccgtgtcgc ctttattccc	4800
ttttttgcgg cattttgcct tcctgttttt gctcacccag aaacgctggt gaaagtaaaa	4860
gatgctgaag atcagttggg tgcacgagt gggtacatcg aactggatct caacagcggt	4920

aagatccttg agagttttcg ccccgaagaa cgttttccaa tgatgagcac ttttaaagtt	4980
ctgctatgtg gcgcggtatt atcccgtatt gacgccgggc aagagcaact cggtcgccgc	5040
atacactatt ctcagaatga cttgggtgag tactcaccag tcacagaaaa gcatcttacg	5100
gatggcatga cagtaagaga attatgcagt gctgccataa ccatgagtga taacactgcg	5160
gccaaacttac ttctgacaac gatcggagga ccgaaggagc taaccgcttt tttgcacaac	5220
atgggggatc atgtaactcg ccttgatcgt tgggaaccgg agctgaatga agccatacca	5280
aacgacgagc gtgacaccac gatgcctgta gcaatggcaa caacgttgcg caaactatta	5340
actggcgaac tacttactct agcttcccgg caacaattaa tagactggat ggaggcggat	5400
aaagttgcag gaccacttct gcgctcggcc cttccggctg gctggtttat tgctgataaa	5460
tctggagccg gtgagcgtgg gtctcgcggt atcattgcag cactggggcc agatggtaag	5520
ccctcccgtg tcgtagttat ctacacgacg gggagtcagg caactatgga tgaacgaaat	5580
agacagatcg ctgagatagg tgcctcactg attaagcatt ggtaactgtc agaccaagtt	5640
tactcatata tacttttagat tgatttaaaa cttcatTTTT aatttaaaag gatctaggtg	5700
aagatccttt ttgataatct catgaccaa atcccttaac gtgagttttc gttccactga	5760
gcgtcagacc ccgtagaaaa gatcaaagga tcttcttgag atcctTTTTT tctgcgcgta	5820
atctgctgct tgcaaacaaa aaaaccaccg ctaccagcgg tggtttgttt gccggatcaa	5880
gagctaccaa ctctttttcc gaaggtaact ggcttcagca gagcgcagat accaaatact	5940
gtccttctag tgtagccgta gttaggccac cacttcaaga actctgtagc accgcctaca	6000
tacctcgctc tgctaatcct gttaccagtg gctgctgcca gtggcgataa gtcgtgtctt	6060
accgggttgg actcaagacg atagttaccg gataaggcgc agcggtcggg ctgaacgggg	6120
ggttcgtgca cacagcccag cttggagcga acgacctaca ccgaactgag atacctacag	6180
cgtgagctat gagaaagcgc cacgcttccc gaaggagaaa aggcggacag gtatccggta	6240
agcggcaggg tcggaacagg agagcgcacg agggagcttc cagggggaaa cgcctggtat	6300
ctttatagtc ctgtcgggtt tcgccacctc tgacttgagc gtcgattttt gtgatgctcg	6360
tcaggggggc ggagcctatg gaaaaacgcc agcaacgcgg cctttttacg gttcctggcc	6420

ttttgctggc cttttgctca catgt

6445

<210> 42

<211> 6554

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE02-CRE04-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 42

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgctg ggcgaccttt	60
ggtcgccccg cctcagttag cgagcgagcg cgagagagg gaggggcaa ctccatcact	120
aggggttcct gcggccgaca ggtgcggttc ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgaccctcg cccacccca tcccctcgg cgggcaactg ggtcgggtca	240
ggaggggcaa acccgctagg gagacactcc atatacggcc cggcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggacct gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtggcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cgggggtggcg cggaggggaat gcccggggc tatataaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccc agccgagagt agcagttgta gctacccgcc caggtagggg cgcgccgtcg	600
acggatcccc ttttagagaa tccacacctg tcccagttgc tgggttccac taccaaaagt	660
gaattgcaac tattttagga gcacttaagc acatccgaaa aatgagtgat tctgttctgg	720
cccacaccac atcactgatg tacccttcta aagcatgtcc ctgagttcat cacagaagac	780
tgctcctcct gtgccctcca caaggtaga actgtccttg tcttagggaa aaaggagaga	840
gagagagaga gagagagaga gagagagaga gagagagaga gagagggaca ggcaccaact	900
gggtaacctc tgctgacccc cactctactt taccataagt agctccaaat ctttctagaa	960
aatctgaaag gcatagcccc atatatcagt gatataaata gaacctgcag caggctctgg	1020
taaatgatga ctacaaggtg gactgggagg cagcccggcc ttggcaggca tcacacctta	1080
aatataaaga tgagtttgtt cagcctttgc agaaggagga tccgtcgacg gcgcgccacg	1140

cgtcagttta ctcaccaggg attcagaggc agcactgctg aaccctgagc ctttggcaca	1200
tcaggttggc tgtcagaagt cggcctttgt acatacacag ttcccttggtg aggcccagct	1260
gcgtgtccta ggagcggggc ctctctccac agcagagctc agcctctcaa gtgtatggac	1320
agcacgggtg cctgatgggt ggatttagcc atgagttgaa ggtggcttgg ggagaatgag	1380
agttctagag ataggagaa ggggttgcca ataggagagt ggaattcctg agcacctcgt	1440
cacaggcagc cgacagaaca tgagccgcag ggcccaggct atttatacct cgcctgtcac	1500
tatcagggtc cccacagctc cccccacctc cagccacaca cagcaggctc ttttgctctt	1560
tctggtccct tctctactcc tccccctccc tacctaaggt acccaacgcg ttacgtggcc	1620
accgccttcg gcaccatcct cacgacacc aaatatggcg acgggtgagg aatggtgggg	1680
agttattttt agagcgggtga ggaaggtggg caggcagcag gtgttggcgc tctaaaaata	1740
actcccggga gttattttta gagcggagga atggtggaca cccaaatatg gcgacggttc	1800
ctcaccctgc gccatatttg ggtgtccgcc ctcgccggg gccgcattcc tgggggccgg	1860
gcggtgctcc cgccgcctc gataaaaggc tccggggccg gcggcgggcc acgagctacc	1920
cggaggagcg ggaggcgcca agctctagat ctagaaagag gtaagggttt aagggatggt	1980
tggttggtgg ggtattaatg ttttaattacc tggagcacct gcctgaaatc actttttttc	2040
aggttggaag cttatggaag atgccaaaaa cattaagaag ggcccagcgc cattctaccc	2100
actcgaggac gggaccgccg gcgagcagct gcacaaagcc atgaagcgct acgccctggt	2160
gcccggcacc atgccttta ccgacgcaca tatcgagggtg gacattacct acgccagta	2220
cttcgagatg agcgttcggc tggcagaagc tatgaagcgc tatgggctga atacaaacca	2280
tcggatcgtg gtgtgcagcg agaatagctt gcagttcttc atgcccgtgt tgggtgccct	2340
gttcatcggg gtggctgtgg ccccagctaa cgacatctac aacgagcgcg agctgctgaa	2400
cagcatgggc atcagccagc ccaccgtcgt attcgtgagc aagaaagggc tgcaaaagat	2460
cctcaacgtg caaaagaagc taccgatcat acaaaagatc atcatcatgg atagcaagac	2520
cgactaccag ggcttccaaa gcatgtacac cttcgtgact tcccatttgc caccggctt	2580
caacgagtac gacttcgtgc ccgagagctt cgaccgggac aaaaccatcg ccctgatcat	2640

gaacagtagt	ggcagtaccg	gattgccccaa	gggcgtagcc	ctaccgcacc	gcaccgcttg	2700
tgtccgattc	agtcatgccc	gcgaccccat	cttcggcaac	cagatcatcc	ccgacaccgc	2760
tatcctcagc	gtggtgccat	ttcaccacgg	cttcggcatg	ttcaccacgc	tgggctactt	2820
gatctgcggc	tttcgggtcg	tgctcatgta	ccgcttcgag	gaggagctat	tcttgcgag	2880
cttgcaagac	tataagattc	aatctgccct	gctggtgccc	acactattta	gcttcttcgc	2940
taagagcact	ctcatcgaca	agtacgacct	aagcaacttg	cacgagatcg	ccagcggcgg	3000
ggcggccgtc	agcaaggagg	taggtgaggc	cgtggccaaa	cgcttcacc	taccaggcat	3060
ccgccagggc	tacggcctga	cagaaacaac	cagcgccatt	ctgatcacc	ccgaagggga	3120
cgacaagcct	ggcgcagtag	gcaaggtggg	gcccttcttc	gaggctaagg	tgggtggactt	3180
ggacaccggt	aagacactgg	gtgtgaacca	gcgcggcgag	ctgtgcgtcc	gtggccccat	3240
gatcatgagc	ggctacgtta	acaaccccga	ggctacaaac	gctctcatcg	acaaggacgg	3300
ctggctgcac	agcggcgaca	tcgcctactg	ggacgaggac	gagcacttct	tcatcgtgga	3360
ccggctgaag	agcctgatca	aatacaaggg	ctaccaggta	gccccagccg	aactggagag	3420
catcctgctg	caacacccca	acatcttcga	cgccggggtc	gccggcctgc	ccgacgacga	3480
tgccggcgag	ctgcccgccg	cagtcgtcgt	gctggaacac	ggtaaaacca	tgaccgagaa	3540
ggagatcgtg	gactatgtgg	ccagccagggt	tacaaccgcc	aagaagctgc	gcggtgggtg	3600
tgtgttcgtg	gacgaggtgc	ctaaaggact	gaccggcaag	ttggacgccc	gcaagatccg	3660
cgagattctc	attaaggcca	agaaggggcg	caagatcgcc	gtgtaattcg	aaacgtcaag	3720
tccatcttga	gcatctgact	tctggctaaa	taaaagatct	ttattttcat	tagatctgtg	3780
tgttggtttt	ttgtgtgctg	cgagatccac	ggccgcagga	acccttagtg	atggagttgg	3840
ccactccctc	tctgcgcgct	cgctcgctca	ctgaggccgg	gcgaccaaag	gtcgcccgac	3900
gcccgggctt	tgcccgggcg	gcctcagtga	gcgagcgagc	gcgcagctgc	ctgcaggggc	3960
gcctgatgcg	gtattttctc	cttacgcata	tgtgcggtat	ttcacaccgc	atacgtcaaa	4020
gcaaccatag	tacgcgccct	gtagcggcgc	attaagcgcg	gcgggtgtgg	tggttacgcg	4080
cagcgtgacc	gctacacttg	ccagcgccct	agcggccgct	cctttcgctt	tcttccttc	4140

ctttctcgcc acgttcgccc gctttccccc tcaagctcta aatcgggggc tccctttagg	4200
gttccgattt agtgctttac ggcacctcga ccccaaaaaa cttgatttgg gtgatggttc	4260
acgtagtggg ccatcgccct gatagacggt ttttcgccct ttgacgttgg agtccacgtt	4320
ctttaatagt ggactcttgt tccaaactgg aacaacactc aaccctatct cgggctattc	4380
ttttgattta taagggattt tgccgatttc ggcctattgg ttaaaaaatg agctgattta	4440
acaaaaattt aacgcgaatt ttaacaaaat attaacgttt acaattttat ggtgcactct	4500
cagtacaatc tgctctgatg ccgcatagtt aagccagccc cgacaccgcg caacaccgcg	4560
tgacgcgccc tgacgggctt gtctgctccc ggcattccgt tacagacaag ctgtgaccgt	4620
ctccgggagc tgcatgtgtc agaggttttc accgtcatca ccgaaacgcg cgagacgaaa	4680
gggcctcgtg atacgcctat ttttataggt taatgtcatg ataataatgg tttcttagac	4740
gtcagggtggc acttttcggg gaaatgtgcg cggaaccctt atttgtttat ttttctaaat	4800
acattcaaatt atgtatccgc tcatgagaca ataaccctga taaatgcttc aataatattg	4860
aaaaaggaag agtatgagta ttcaacattt ccgtgtcgcc cttattccct tttttgcggc	4920
attttgcctt cctgtttttg ctcaccaga aacgctggtg aaagtaaaag atgctgaaga	4980
tcagttgggt gcacgagtgg gttacatcga actggatctc aacagcggta agatccttga	5040
gagttttcgc cccgaagaac gttttccaat gatgagcact tttaaagttc tgctatgtgg	5100
cgcggtatta tcccgtattg acgccgggca agagcaactc ggtcgccgca tacactattc	5160
tcagaatgac ttggttgagt actcaccagt cacagaaaag catcttacgg atggcatgac	5220
agtaagagaa ttatgcagtg ctgccataac catgagtgat aacactgcgg ccaacttact	5280
tctgacaacg atcggaggac cgaaggagct aaccgctttt ttgcacaaca tgggggatca	5340
tgtaactcgc cttgatcgtt gggaaccgga gctgaatgaa gccataccaa acgacgagcg	5400
tgacaccacg atgcctgtag caatggcaac aacgttgcgc aaactattaa ctggcgaact	5460
acttactcta gcttcccggc aacaattaat agactggatg gaggcggata aagttgcagg	5520
accacttctg cgctcggccc ttccggctgg ctggtttatt gctgataaat ctggagccgg	5580
tgagcgtggg tctcgcggta tcattgcagc actggggcca gatggtaagc cctcccgtat	5640

cgtagttatc tacacgacgg ggagtcaggc aactatggat gaacgaaata gacagatcgc	5700
tgagataggt gcctcactga ttaagcattg gtaactgtca gaccaagttt actcatatat	5760
acttttagatt gatttaaaac ttcattttta atttaaaagg atctaggtga agatcctttt	5820
tgataatctc atgacaaaaa tcccttaacg tgagttttcg ttccactgag cgtcagaccc	5880
cgtagaaaag atcaaaggat cttcttgaga tccttttttt ctgcgcgtaa tctgctgctt	5940
gcaaacaaaa aaaccaccgc taccagcggg ggtttgtttg ccggatcaag agctaccaac	6000
tcctttttccg aaggtaactg gcttcagcag agcgcagata ccaaatactg tccttctagt	6060
gtagccgtag ttaggccacc acttcaagaa ctctgtagca ccgcctacat acctcgtctt	6120
gctaatacctg ttaccagtgg ctgctgccag tggcgataag tcgtgtctta ccgggttgga	6180
ctcaagacga tagttaccgg ataaggcgca gcggtcgggc tgaacggggg gttcgtgcac	6240
acagcccagc ttggagcgaa cgacctacac cgaactgaga tacctacagc gtgagctatg	6300
agaaagcgcc acgcttcccg aaggagaaaa ggccggacagg tatccggtaa gcggcagggt	6360
cggaacagga gagcgcacga gggagcttcc agggggaaac gcctggtatc tttatagtcc	6420
tgtcggggtt cgccacctct gacttgagcg tcgatttttg tgatgctcgt caggggggcg	6480
gagcctatgg aaaaacgcca gcaacgcggc ctttttacgg ttcctggcct tttgctggcc	6540
ttttgctcac atgt	6554

<210> 43

<211> 6986

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-CRE02-CRE04-CRE06-CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 43

cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgctg ggcgaccttt	60
ggtcgccccg cctcagttag cgagcgagcg cgcagagagg gaggggccaa ctccatcact	120
aggggttcct gcggccgaca ggtgcgggtt ccggagcgca ggcgcacaca tgcacccacc	180
ggcgaacgcg gtgaccctcg cccacccca tcccctccgg cgggcaactg ggtcgggtca	240

ggaggggcaa acccgctagg gagacactcc atatacggcc cggcccgcgt tacctgggac	300
cgggccaacc cgctccttct ttggtcaacg caggggaccc gggcgggggc ccaggccgcg	360
aaccggccga gggagggggc tctagtgcc aacacccaaa tatggctcga gaagggcagc	420
gacattcctg cggggtggcg cggagggaat gcccgcgggc tatataaaac ctgagcagag	480
ggacaagcgg ccaccgcagc ggacagcgcc aagtgaagcc tcgcttcccc tccgcggcga	540
ccaggggccg agccgagagt agcagttgta gctacccgcc caggtagggg cgcgcccgt	600
cggtcgacgg atcccccttt agagaatcca cacctgtccc agttgctggg ttccactacc	660
aaaagtgaat tgcaactatt ttaggagcac ttaagcacat ccgaaaaatg agtgattctg	720
ttctggccca caccacatca ctgatgtacc cccttaaagc atgtccctga gttcatcaca	780
gaagactgct cctcctgtgc cctccacaag gttagaactg tccttgtctt agggaaaaag	840
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gggacaggca	900
ccaactgggt aacctctgct gacccccact ctactttacc ataagtagct ccaaatcctt	960
ctagaaaatc tgaaaggcat agccccatat atcagtgata taaatagaac ctgcagcagg	1020
ctctggtaaa tgatgactac aaggtggact gggaggcagc ccggccttgg caggcatcat	1080
cctctaaata taaagatgag tttgttcagc ctttgagaa ggaggcgcg cgtcgacgga	1140
tccgggccag gggacggtgg cttctacgtg cttgggacgt tcccagccac cgtcccatgt	1200
tcccggcggg gggccagctg tccccaccgc cagcccaact cagcacttgg tcagggtatc	1260
agcttggtgg gggggcgta gccagcccc tggggcggt cagcccatac aaggccatgg	1320
ggctgggcgc aaagcatgcc tgggttcagg gtgggtatgg tgcgggagca gggagggtgag	1380
aggctcagct gccctccaga actcctccct ggggacaacc cctcccagcc aatagcacag	1440
cctaggtccc cctatataag gccacggctg ctggcccttc ctttgggtca gtgtcacctc	1500
caggatacag acagcccccc ttcagcccag ccagccagg tacggatccg tcgaccgtac	1560
gggcgcgcca cgcgtcagtt tactcaccag ggattcagag gcagcactgc tgaaccctga	1620
gcccttggca catcaggttg gctgtcagaa gtcggccttt gtacatacac agttcccttg	1680
tgaggcccag ctgcgtgtcc taggagcggg gcctctctcc acagcagagc tcagcctctc	1740

aagtgtatgg acagcacggg tgcctgatgg gtggatttag ccatgagttg aaggtggctt	1800
ggggagaatg agagttctag agatagggag aaggggttgc caataggaga gtggaattcc	1860
tgagcacctc gtcacaggca gccgacagaa catgagccgc agggcccagg ctattttatac	1920
ctcgcctgtc actatcaggg tccccacagc tccccccacc tccagccaca cacagcaggt	1980
ccttttgctc tttctggtcc cttctctact cttccccctc cctacctaag gtaccaaacg	2040
cgttacgtgg ccaccgcctt cggcaccatc ctcacgacac ccaaatatgg cgacgggtga	2100
ggaatgggtgg ggagttatth ttagagcggg gaggaaggtg ggcaggcagc aggtgttggc	2160
gctctaataaa taactcccgg gagttattht tagagcggag gaatggtgga caccctaaata	2220
tggcgacggg tcctcacccg tcgcatatt tgggtgtccg ccctcggccg gggccgcatt	2280
cctggggggcc gggcgggtgt cccgcccgcc tcgataaaag gctccggggc cggcggcggc	2340
ccacgagcta cccggaggag cgggaggcgc caagctctag atctagaaag aggttaagggt	2400
ttaagggatg gttggttggg ggggtattaa tgtttaatta cctggagcac ctgcctgaaa	2460
tcactthttt tcaggttgga agcttatgga agatgctaaa aacattaaga agggcccagc	2520
gccattctac ccactcgagg acgggaccgc cggcgagcag ctgcacaaag ccatgaagcg	2580
ctacgccctg gtgcccggca ccatcgctt taccgacgca catatcgagg tggacattac	2640
ctacgccgag tacttcgaga tgagcgttcg gctggcagaa gctatgaagc gctatgggct	2700
gaatacaaac catcggatcg tgggtgtgcag cgagaatagc ttgcagttct tcatgcccgt	2760
gttgggtgcc ctgttcacgc gtgtggctgt ggccccagct aacgacatct acaacgagcg	2820
cgagctgctg aacagcatgg gcatcagcca gcccaccgtc gtattcgtga gcaagaaagg	2880
gctgcaaaaag atcctcaacg tgcaaaaaga gctaccgatc atacaaaaga tcatcatcat	2940
ggatagcaag accgactacc agggcttcca aagcatgtac accttcgtga cttcccattt	3000
gccaccggc ttcaacgagt acgacttcgt gcccagagac ttcgaccggg acaaaacat	3060
cgccctgatc atgaacagta gtggcagtac cggattgccc aagggcgtag ccctaccgca	3120
ccgcaccgct tgtgtccgat tcagtcatgc ccgcgacccc atcttcggca accagatcat	3180
ccccgacacc gctatcctca gcgtgggtgcc atttcaccac ggcttcggca tgttcaccac	3240

gctgggctac ttgatctgcg gctttcgggt cgtgctcatg taccgcttcg aggaggagct	3300
attcttgcg agcttgcaag actataagat tcaatctgcc ctgctgggtgc ccacactatt	3360
tagcttcttc gctaagagca ctctcatcga caagtacgac ctaagcaact tgcacgagat	3420
cgccagcggc ggggcgccgc tcagcaagga ggtaggtgag gccgtggcca aacgcttcca	3480
cctaccaggc atccgccagg gctacggcct gacagaaaca accagcgcca ttctgacac	3540
ccccgaagg gacgacaagc ctggcgagcagg aggcaagggtg gtgcccttct tcgaggctaa	3600
ggtaggtggc ttggacaccg gtaagacact gggtgtgaac cagcgcgccg agctgtgcgt	3660
ccgtggcccc atgatcatga gcggctacgt taacaacccc gaggtacaa acgctctcat	3720
cgacaaggac ggctgggtgc acagcggcga catcgccctac tgggacgagg acgagcactt	3780
cttcatcgtg gaccgggtga agagcctgat caaatacaag ggctaccagg tagccccagc	3840
cgaactggag agcatcctgc tgcaacaccc caacatcttc gacgccgggg tcgccggcct	3900
gcccgcgac gatgccggcg agctgcccgc cgcagtcgtc gtgctggaac acggtaaaac	3960
catgaccgag aaggagatcg tggactatgt ggccagccag gttacaaccg ccaagaagct	4020
gcgcgggtgg gttgtgttcg tggacgaggt gcctaaagga ctgaccggca agttggacgc	4080
ccgcaagatc cgcgagattc tcattaaggc caagaagggc ggcaagatcg ccgtgtaatt	4140
cgaaacgtca agtccatctt gagcatctga cttctggcta aataaaagat ctttattttc	4200
attagatctg tgtgttggtt ttttgtgtgc gtcgagatcc acggccgcag gaaccctag	4260
tgatggagtt ggccactccc tctctgcgcg ctcgctcgtc cactgaggcc gggcgaccaa	4320
aggtcgcccc acgcccgggc tttgcccggg cggcctcagt gagcgagcga gcgcgcagct	4380
gcctgcaggg gcgcctgatg cggatattttc tccttacgca tctgtgcggt atttcacacc	4440
gcatacgtca aagcaacat agtacgcgcc ctgtagcggc gcattaagcg cggcgggtgt	4500
ggtaggttac cgcagcgtga ccgctacact tgccagcgcc ctagcgccc ctcctttcgc	4560
tttcttccct tcctttctcg ccacgttcgc cggctttccc cgtcaagctc taaatcgggg	4620
gctcccttta gggttccgat ttagtgcttt acggcacctc gaccccaaaa aacttgattt	4680
gggtgatggt tcacgtagtg ggccatcgcc ctgatagacg gtttttcgcc ctttgacgtt	4740

ggagtccacg ttccttaata gtggactctt gttccaaact ggaacaacac tcaaccctat	4800
ctcgggctat tcttttgatt tataagggat tttgccgatt tcggcctatt ggtaaaaaa	4860
tgagctgatt taacaaaaat ttaacgcgaa ttttaacaaa atattaacgt ttacaatttt	4920
atggtgcact ctcagtacaa tctgctctga tgccgcatag ttaagccagc cccgacaccc	4980
gccaacaccc gctgacgcgc cctgacgggc ttgtctgctc ccggcatccg cttacagaca	5040
agctgtgacc gtctccggga gctgcatgtg tcagaggttt tcaccgtcat caccgaaacg	5100
cgcgagacga aagggcctcg tgatagcct atttttatag gttaatgtca tgataataat	5160
ggtttcttag acgtcagggtg gcacttttcg gggaaatgtg cgcggaaccc ctatttgttt	5220
atttttctaa atacattcaa atatgtatcc gctcatgaga caataaccct gataaatgct	5280
tcaataatat tgaaaaagga agagtatgag tattcaacat ttccgtgtcg cccttattcc	5340
cttttttgcg gcattttgcc ttcctgtttt tgctcaccca gaaacgctgg tgaaagtaaa	5400
agatgctgaa gatcagttgg gtgcacgagt gggttacatc gaactggatc tcaacagcgg	5460
taagatcctt gagagttttc gccccgaaga acgtttttcca atgatgagca cttttaaagt	5520
tctgctatgt ggcgcggtat tatcccgtat tgacgccggg caagagcaac tcggtcgccg	5580
catacactat tctcagaatg acttggttga gtactcacca gtcacagaaa agcatcttac	5640
ggatggcatg acagtaagag aattatgcag tgctgccata accatgagtg ataacactgc	5700
ggccaactta cttctgacaa cgatcggagg accgaaggag ctaaccgctt ttttgacaaa	5760
catgggggat catgtaactc gccttgatcg ttgggaaccg gagctgaatg aagccatacc	5820
aaacgacgag cgtgacacca cgatgcctgt agcaatggca acaacgttgc gcaaactatt	5880
aactggcgaa ctacttactc tagcttcccg gcaacaatta atagactgga tggaggcgga	5940
taaagttgca ggaccacttc tgcgctcggc ctttccggct ggctggttta ttgctgataa	6000
atctggagcc ggtgagcgtg ggtctcgcgg tatcattgca gcactggggc cagatggtaa	6060
gccctcccgt atcgtagtta tctacacgac ggggagtcag gcaactatgg atgaacgaaa	6120
tagacagatc gctgagatag gtgcctcact gattaagcat tggtaactgt cagaccaagt	6180
ttactcatat atactttaga ttgatttaaa acttcatttt taatttaaaa ggatctaggt	6240

gaagatcctt tttgataatc tcatgaccaa aatcccttaa cgtgagtttt cgttccactg	6300
agcgtcagac cccgtagaaa agatcaaagg atcttcttga gatccttttt ttctgcgcgt	6360
aatctgctgc ttgcaaacia aaaaaccacc gctaccagcg gtggtttgtt tgccggatca	6420
agagctacca actctttttc cgaaggtaac tggcttcagc agagcgcaga taccaaatac	6480
tgtccttcta gtgtagccgt agttaggcca ccacttcaag aactctgtag caccgcctac	6540
atacctcgct ctgctaattc tgttaccagt ggctgctgcc agtggcgata agtcgtgtct	6600
taccgggttg gactcaagac gatagttacc ggataaggcg cagcggtcgg gctgaacggg	6660
gggttcgtgc acacagccca gcttggagcg aacgacctac accgaactga gataacctaca	6720
gcgtgagcta tgagaaagcg ccacgcttcc cgaagggaga aaggcggaca ggtatccggt	6780
aagcggcagg gtcggaacag gagagcgcac gagggagctt ccagggggaa acgccttgta	6840
tctttatagt cctgtcgggt ttcgccacct ctgacttgag cgtcgatttt tgtgatgctc	6900
gtcagggggg cggagcctat ggaaaaacgc cagcaacgcg gcctttttac ggttcctggc	6960
cttttgctgg ctttttgctc acatgt	6986

<210> 44
 <211> 4428
 <212> DNA
 <213> Secuencia Artificial

 <220>
 <223> AAV- SPc5-12-MVM-hß-SG-pA

<400> 44	
acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcgc agagagggag	120
tggccaactc catcactagg ggttcctgcg gccggcgcgc cacgcgtggt acccaacgcg	180
ttacgtggcc accgccttcg gcaccatcct cacgacaccc aaatatggcg acgggtgagg	240
aatggtgggg agttatTTTT agagcgggtga ggaaggtggg caggcagcag gtgttggcgc	300
tctaaaaata actcccggga gttatTTTT gagcggagga atggtggaca cccaaatatg	360
gcgacgggtc ctcacccgtc gccatatttg ggtgtccgcc ctcggccggg gccgcattcc	420

tgggggcccg gcggtgctcc cgcccgctc gataaaaggc tccggggccg gcggcggccc	480
acgagctacc cggaggagcg ggaggcgcca agctctagat ctagaaagag gtaagggttt	540
aagggatggt tggttggtgg ggtattaatg ttttaattacc tggagcacct gcctgaaatc	600
actttttttc aggttggaag cttgccacca tggcggcagc ggccggcggcg gctgcagaac	660
agcaaagttc caatggctct gtaaagaagt ccatgcgtga gaaggctgtt gagagaagga	720
gtgtcaataa agagcacaac agtaacttta aagctggata cattccgatt gatgaagatc	780
gtctccacaa aacagggttg agaggaagaa agggcaattt agccatctgt gtgattatcc	840
tcttgtttat cctggctgtc atcaatttaa taataacact tgttatttgg gccgtgattc	900
gcattggacc aaatggctgt gatagtatgg agtttcatga aagtggcctg cttcgattta	960
agcaagtatc tgacatggga gtgatccacc ctctttataa aagcacagta ggaggaaggc	1020
gaaatgaaaa tttggtcatc actggcaaca accagcctat tgtttttcag caagggacaa	1080
caaagctcag tgtagaaaac aacaaaactt ctattacaag tgacatcggc atgcagtttt	1140
ttgacccgag gactcaaaat atcttattca gcacagacta tgaaactcat gagtttcatt	1200
tgccaagtgg agtgaaaagt ttgaatgttc aaaaggcatc tactgaaagg attaccagca	1260
atgctaccag tgattttaa ataaaaagttg atgggcgtgc tattgtgcgt ggaaatgaag	1320
gtgtattcat tatgggcaaa accattgaat ttcacatggg tggtaatatg gagttaaagg	1380
cggaaaacag tatcatccta aatggatctg tgatggctag caccaccgc ctaccagtt	1440
cctccagtgg agaccagttg ggtagtggtg actgggtacg ctacaagctc tgcattgtgtg	1500
ctgatgggac gctcttcaag gtgcaagtaa ccagccagaa catgggctgc caaatctcag	1560
acaaccctg tggaacact cattaattcg aaacgttgtg tccatcttga gcatctgact	1620
tctggctaaa taaaagatct ttattttcat tagatctgtg tgttggtttt ttgtgtgcgt	1680
cgagatccac ggccgcagga acccctagtg atggagttgg ccactccctc tctgcgcgt	1740
cgctcgctca ctgaggccgg gcgaccaaag gtcgcccgc gcccgggctt tgcccgggcg	1800
gcctcagtga gcgagcgagc gcgcagctgc ctgcaggggc gcctgatgcg gtattttctc	1860
cttacgcac tgtgcggtat ttcacaccgc atacgtcaaa gcaaccatag tacgcgcct	1920

gtagcggcgc attaagcgcg gcgggtgtgg tggttacgcg cagcgtgacc gctacacttg	1980
ccagcgccct agcgcccgt ctttcgctt tcttccttc ctttctcgcc acgttcgccg	2040
gctttccccg tcaagctcta aatcgggggc tcccttagg gttccgattt agtgctttac	2100
ggcacctcga ccccaaaaaa cttgatttgg gtgatggttc acgtagtggg ccatcgccct	2160
gatagacggt ttttcgccct ttgacgttgg agtccacgtt ctttaatagt ggactcttgt	2220
tccaaactgg aacaacactc aaccctatct cgggctattc ttttgattta taagggattt	2280
tgccgatttc ggcctattgg ttaaaaaatg agctgattta acaaaaattt aacgcgaatt	2340
ttaacaaaat attaacgttt acaattttat ggtgcactct cagtacaatc tgctctgatg	2400
ccgcatagtt aagccagccc cgacaccgc caacaccgc tgacgcgcc tgacgggctt	2460
gtctgtccc ggcattcgct tacagacaag ctgtgaccgt ctccgggagc tgcatgtgtc	2520
agaggttttc accgtcatca ccgaaacgcg cgagacgaaa gggcctcgtg atacgcctat	2580
ttttataggt taatgtcatg ataataatgg tttcttagac gtcaggtggc acttttcggg	2640
gaaatgtgcg cggaaccct atttgtttat ttttctaaat acattcaaat atgtatccgc	2700
tcatgagaca ataaccctga taaatgcttc aataatattg aaaaaggaag agtatgagta	2760
ttcaacattt ccgtgtcgcc cttattccct tttttgcggc attttgctt cctgtttttg	2820
ctcaccaga aacgctggtg aaagtaaaag atgctgaaga tcagttgggt gcacgagtgg	2880
gttacatcga actggatctc aacagcggta agatccttga gagttttcgc cccgaagaac	2940
gttttccaat gatgagcact tttaaagttc tgctatgtgg cgcggtatta tcccgtattg	3000
acgccgggca agagcaactc ggtcgccgca tacactattc tcagaatgac ttggttgagt	3060
actcaccagt cacagaaaag catcttacgg atggcatgac agtaagagaa ttatgcagtg	3120
ctgccataac catgagtgat aacactgcgg ccaacttact tctgacaacg atcggaggac	3180
cgaaggagct aaccgctttt ttgcacaaca tgggggatca tgtaactcgc cttgatcgtt	3240
gggaaccgga gctgaatgaa gccataccaa acgacgagcg tgacaccacg atgcctgtag	3300
caatggcaac aacgttgcgc aaactattaa ctggcgaact acttactcta gcttcccggc	3360
aacaattaat agactggatg gaggcggata aagttgcagg accacttctg cgctcggccc	3420

ttccggctgg ctggtttatt gctgataaat ctggagccgg tgagcgtggg tctcgcggtg	3480
tcattgcagc actggggcca gatggtaagc cctcccgtat cgtagttatc tacacgacgg	3540
ggagtcaggc aactatggat gaacgaaata gacagatcgc tgagataggt gcctcactga	3600
ttaagcattg gtaactgtca gaccaagttt actcatatat acttttagatt gatttaaaac	3660
ttcatTTTTTA atttaaaagg atctaggtga agatcctttt tgataatctc atgacaaaaa	3720
tcccttaacg tgagtttttcg ttccactgag cgtcagaccc cgtagaaaag atcaaaggat	3780
cttcttgaga tccttttttt ctgcgcgtaa tctgctgctt gcaaacaaaa aaaccaccgc	3840
taccagcggg ggtttgtttg ccggatcaag agctaccaac tctttttccg aaggtaactg	3900
gcttcagcag agcgcagata ccaaatactg tccttctagt gtagccgtag ttaggccacc	3960
acttcaagaa ctctgtagca ccgcctacat acctcgctct gctaatcctg ttaccagtgg	4020
ctgctgccag tggcgataag tcgtgtctta ccgggttgga ctcaagacga tagttaccgg	4080
ataaggcgca gcggtcgggc tgaacggggg gttcgtgcac acagcccagc ttggagcgaa	4140
cgacctacac cgaactgaga tacctacagc gtgagctatg agaaagcgcc acgcttccc	4200
aaggggagaaa ggcgacagg tatccggtaa gcggcagggt cggaacagga gagcgcacga	4260
gggagcttcc agggggaaac gcctgggtatc tttatagtcc tgtcgggttt cgccacctct	4320
gacttgagcg tcgatttttg tgatgctcgt caggggggcg gagcctatgg aaaaacgcca	4380
gcaacgcggc ctttttacgg ttcctggcct tttgctggcc ttttgctc	4428

<210> 45

<211> 4428

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV- SPc5-12-MVM-hβ-SGco-pA

<400> 45

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagccc	60
ggcgtcgggc gacctttggt cgccggcct cagtgagcga gcgagcgcgc agagaggag	120
tggccaactc catcactagg ggttcctgcg gccggcgcgc cacgcgtggt acccaacgcg	180

ttacgtggcc accgccttcg gcaccatcct cacgacaccc aaatatggcg acgggtgagg	240
aatggtgggg agttatTTTT agagcgggta ggaagggtggg caggcagcag gtgttggcgc	300
tctaaaaata actccccgga gttatTTTTa gagcggagga atggtggaca cccaaatatg	360
gcgacggttc ctcacccgtc gccatatttg ggtgtccgcc ctcggccggg gccgcattcc	420
tgggggccgg gcggtgctcc cgcccgctc gataaaaggc tccggggccg gcggcggccc	480
acgagctacc cggaggagcg ggaggcgcca agctctagat ctagaaagag gtaagggttt	540
aagggatggt tggttggtgg ggtattaatg tttaattacc tggagcacct gcctgaaatc	600
actTTTTttc aggttggaag cttgccacca tggctgctgc cgctgctgct gcagctgaac	660
agcaatctag caacggcccc gtgaagaaat ccatgcgcga gaaggccgtc gagcggagat	720
ctgtgaacaa agagcacaac agcaacttca aggccggcta catccccatc gacgaggaca	780
gactgcacaa gacaggcctg agaggcagaa agggcaatct ggccatctgc gtgatcatcc	840
tgctgttcat cctggccgtg atcaacctga tcatcacctt ggtcatctgg gccgtgatta	900
gaatcggccc caacggctgc gacagcatgg aatttcacga gagcggcctg ctgcggttca	960
aacagggtgc cgatatgggc gtgatccatc cactgtacaa gagcaccgtt ggcggcagaa	1020
gaaacgagaa tctggtcatc accggcaaca accagcctat cgtgtttcag cagggcacca	1080
ccaagctgag cgtggaaaac aacaagacca gcatcaccag cgacatcggc atgcagttct	1140
tcgaccccag aacacagaac atcctgttca gcaccgacta cgagacacac gagttccatc	1200
tgcctagcgg cgtgaagtcc ctgaatgtgc agaaggccag caccgagaga atcaccagca	1260
atgccacctc cgacctgaac atcaaagtgg acggcagagc catcgtgcgg ggaaatgagg	1320
gcgtgttcat catgggcaag accatcgagt tccacatggg cggcaacatg gaactgaagg	1380
ccgagaacag catcatcctg aacggcagcg tgatggtgtc caccacaaga ctgccaagca	1440
gcagctctgg cgatcagctt ggatctggcg actgggtccg atacaagctg tgtatgtgtg	1500
ccgacggcac cctgttcaag gtgcaagtga caagccagaa catgggctgc cagatcagcg	1560
acaacccttg cggcaatacc cactgattcg aaacgttgtg tccatcttga gcatctgact	1620
tctggctaaa taaaagatct ttattttcat tagatctgtg tgttggtttt ttgtgtgcgt	1680

cgagatccac ggccgcagga acccctagtg atggagttgg ccactccctc tctgcgcgct	1740
cgctcgtca ctgaggccgg gcgaccaaag gtcgcccgc gcccgggctt tgcccgggcg	1800
gcctcagtga gcgagcgagc gcgcagctgc ctgcaggggc gcctgatgcg gtatcttctc	1860
cttacgcac tgtgcggtat ttcacaccgc atacgtcaaa gcaaccatag tacgcgcctt	1920
gtagcggcgc attaaagcgc gcgggtgtgg tggttacgc cagcgtgacc gctacacttg	1980
ccagcggcct agcgcgcct cctttcgctt tcttcccttc ctttctcgcc acgttcgccg	2040
gctttccccg tcaagctcta aatcgggggc tcccttagg gttccgattt agtgctttac	2100
ggcacctcga cccccaaaaa cttgatttgg gtgatggttc acgtagtggg ccatcgccct	2160
gatagacggg ttttcgccct ttgacgttgg agtccacgtt ctttaatagt ggactcttgt	2220
tccaaactgg aacaacactc aaccctatct cgggctattc ttttgattta taagggattt	2280
tgccgatttc ggctatttgg ttaaaaaatg agctgattta acaaaaattt aacgcgaatt	2340
ttaacaaaat attaacgttt acaattttat ggtgcactct cagtacaatc tgctctgatg	2400
ccgcatagt aagccagccc cgacaccgc caacaccgc tgacgcgcc tgacgggctt	2460
gtctgctccc ggcatccgct tacagacaag ctgtgaccgt ctccgggagc tgcatgtgtc	2520
agaggttttc accgtcatca ccgaaacgc cgagacgaaa gggcctcgtg atacgcctat	2580
ttttataggt taatgtcatg ataataatgg tttcttagac gtcaggtggc acttttcggg	2640
gaaatgtgcg cggaaccctt atttgtttat ttttctaaat acattcaa atgtatccgc	2700
tcatgagaca ataaccctga taaatgcttc aataatattg aaaaaggaag agtatgagta	2760
ttcaacattt ccgtgtcgc cttattccct tttttgcggc attttgcctt cctgtttttg	2820
ctcaccaga aacgctggtg aaagtaaaag atgctgaaga tcagttgggt gcacgagtgg	2880
gttacatcga actggatctc aacagcggta agatccttga gagttttcgc cccgaagaac	2940
gttttccaat gatgagcact tttaaagtgc tgctatgtgg cgcggtatta tcccgtattg	3000
acgccgggca agagcaactc ggtcgccgca tacactattc tcagaatgac ttggttgagt	3060
actcaccagt cacagaaaag catcttacgg atggcatgac agtaagagaa ttatgcagtg	3120
ctgccataac catgagtgat aacactgcgg ccaacttact tctgacaacg atcggaggac	3180

cgaaggagct aaccgctttt ttgcacaaca tgggggatca tgtaactcgc cttgatcgtt	3240
gggaaccgga gctgaatgaa gccatacaca acgacgagcg tgacaccacg atgcctgtag	3300
caatggcaac aacgttgcg aaactattaa ctggcgaact acttactcta gcttcccggc	3360
aacaattaat agactggatg gaggcggata aagttgcagg accacttctg cgctcggccc	3420
ttccggctgg ctggtttatt gctgataaat ctggagccgg tgagcgtggg tctcgcggta	3480
tcattgcagc actggggcca gatggtaagc cctcccgtat cgtagttatc tacacgacgg	3540
ggagtcaggc aactatggat gaacgaaata gacagatcgc tgagataggt gcctcactga	3600
ttaagcattg gtaactgtca gaccaagttt actcatatat acttttagatt gatttaaaac	3660
ttcattttta atttaaaagg atctaggtga agatcctttt tgataatctc atgacaaaaa	3720
tcccttaacg tgagttttcg ttccactgag cgtcagaccc cgtagaaaag atcaaaggat	3780
cttcttgaga tccttttttt ctgcgcgtaa tctgctgctt gcaaacaaaa aaaccaccgc	3840
taccagcggg ggtttgtttg ccggatcaag agctaccaac tctttttccg aaggtaactg	3900
gcttcagcag agcgcagata ccaaatactg tccttctagt gtagccgtag ttaggccacc	3960
acttcaagaa ctctgtagca ccgcctacat acctcgctct gctaatcctg ttaccagtgg	4020
ctgctgccag tggcgataag tcgtgtctta ccgggttgga ctcaagacga tagttaccgg	4080
ataaggcgca gcggtcgggc tgaacggggg gttcgtgcac acagcccagc ttggagcgaa	4140
cgacctacac cgaactgaga tacctacagc gtgagctatg agaaagcgcc acgcttcccg	4200
aaggagaaaa ggcgacagg tatccggtaa gcggcagggt cggaacagga gagcgcacga	4260
gggagcttcc agggggaaac gcctggtatc tttatagtcc tgtcgggttt cgccacctct	4320
gacttgagcg tcgatttttg tgatgctcgt caggggggcg gagcctatgg aaaaacgcca	4380
gcaacgcggc ctttttacgg ttcctggcct tttgctggcc ttttgctc	4428

<210> 46

<211> 5118

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV-SPc5-12-MVM-Luc-pA

<400> 46

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccggcct cagtgagcga gcgagcgcgc agagagggag	120
tggccaactc catcactagg ggttcctgcg gccggcgcgc cacgcgtggt acccaacgcg	180
ttacgtggcc accgccttcg gcaccatcct cacgacaccc aaatatggcg acgggtgagg	240
aatggtgggg agttatTTTT agagcgggtga ggaaggtggg caggcagcag gtgttggcgc	300
tctaaaaata actcccggga gttatTTTTa gagcggagga atggtggaca cccaaatatg	360
gcgacggttc ctcacccgtc gccatatttg ggtgtccgcc ctcggccggg gccgcattcc	420
tgggggcccgg gcggtgctcc cgcccgcctc gataaaaggc tccggggccg gcggcggccc	480
acgagctacc cggaggagcg ggaggcgcca agctctagat ctagaaagag gtaagggttt	540
aagggatggt tggttggtgg ggtattaatg ttttaattacc tggagcacct gcctgaaatc	600
actttttttc aggttgaag cttatggaag atgccaaaaa cattaagaag ggcccagcgc	660
cattctaccc actcgaagac gggaccgccg gcgagcagct gcacaaagcc atgaagcgct	720
acgccctggt gcccggcacc atcgccttta ccgacgcaca tatcgagggtg gacattacct	780
acgccgagta cttcgagatg agcgttcggc tggcagaagc tatgaagcgc tatgggctga	840
atacaaacca tcggatcgtg gtgtgcagcg agaatagctt gcagttcttc atgcccgtgt	900
tgggtgccct gttcatcggt gtggctgtgg cccagctaa cgacatctac aacgagcgcg	960
agctgctgaa cagcatgggc atcagccagc ccaccgtcgt attcgtgagc aagaaagggc	1020
tgcaaaagat cctcaacgtg caaaagaagc taccgatcat acaaaagatc atcatcatgg	1080
atagcaagac cgactaccag ggcttccaaa gcatgtacac cttcgtgact tcccatttgc	1140
cacccggctt caacgagtac gacttcgtgc ccgagagctt cgaccgggac aaaaccatcg	1200
ccctgatcat gaacagtagt ggagtagc gattgcccga gggcgtagcc ctaccgcacc	1260
gcaccgcttg tgtccgattc agtcatgccc gcgaccccat cttcggcaac cagatcatcc	1320
ccgacaccgc tatcctcagc gtggtgccat ttcaccacgg cttcggcatg ttcaccacgc	1380
tgggctactt gatctgcggc tttcgggtcg tgctcatgta ccgcttcgag gaggagctat	1440

tcttgcgag cttgcaagac tataagattc aatctgccct gctggtgccc acactattta	1500
gcttcttcgc taagagcact ctcatcgaca agtacgacct aagcaacttg cacgagatcg	1560
ccagcggcgg ggcgccgctc agcaaggagg taggtgaggc cgtggccaaa cgcttccacc	1620
taccaggcat ccgccagggc tacggcctga cagaaacaac cagcgccatt ctgatcacc	1680
ccgaagggga cgacaagcct ggcgagtag gcaagggtgt gcccttcttc gaggctaagg	1740
tggtggactt ggacaccggt aagacactgg gtgtgaacca gcgcggcgag ctgtgcgtcc	1800
gtggcccat gatcatgagc ggctacgtta acaacccga ggctacaaac gctctcatcg	1860
acaaggacgg ctggctgcac agcggcgaca tcgcctactg ggacaggag gagcacttct	1920
tcatcgtgga ccggctgaag agcctgatca aatacaaggg ctaccaggta gcccagccg	1980
aactggagag catcctgctg caacaccca acatcttcga cgccggggtc gccggcctgc	2040
ccgacgacga tgccggcgag ctgcccgcg cagtcgtcgt gctggaacac ggtaaaacca	2100
tgaccgagaa ggagatcgtg gactatgtgg ccagccaggt tacaaccgcc aagaagctgc	2160
gcggtggtgt tgtgttcgtg gacgaggtgc ctaaaggact gaccggcaag ttggacgccc	2220
gcaagatccg cgagattctc attaaggcca agaaggcgcg caagatcgcc gtgtaattcg	2280
aaacgttgtg tccatcttga gcatctgact tctggctaaa taaaagatct ttattttcat	2340
tagatctgtg tgttggtttt ttgtgtgctg cgagatccac ggccgcagga acccctagt	2400
atggagttgg ccactccctc tctgcgcgct cgctcgtca ctgaggccgg gcgaccaaag	2460
gtcggccgac gcccgggctt tgcccggcg gcctcagtga gcgagcgagc gcgcagctgc	2520
ctgcaggggc gcctgatgcg gtattttctc cttacgcatc tgtgcggtat ttcacaccgc	2580
atacgtcaaa gcaaccatag tacgcgccct gtagcggcg ctaagcgcg gcgggtgtgg	2640
tggttacgcg cagcgtgacc gctacacttg ccagcgccct agcgcccgct ctttctgctt	2700
tcttcccttc ctttctcgcc acgttcgccc gctttcccg tcaagctcta aatcgggggc	2760
tccctttagg gttccgattt agtgctttac ggcacctcga cccccaaaaa cttgatttgg	2820
gtgatggttc acgtagtggg ccatcgccct gatagacggt ttttcgccct ttgacgttgg	2880
agtccacgtt ctttaatagt ggactcttgt tccaaactgg aacaacactc aaccctatct	2940

cgggctattc ttttgattta taagggattt tgccgatttc ggcctattgg ttaaaaaatg	3000
agctgattta acaaaaattt aacgcgaatt ttaacaaaat attaacgttt acaattttat	3060
ggtgcactct cagtacaatc tgctctgatg ccgcatagtt aagccagccc cgacacccgc	3120
caacacccgc tgacgcgccc tgacgggctt gtctgtctcc ggcatccgct tacagacaag	3180
ctgtgaccgt ctccgggagc tgcattgtgc agaggttttc accgtcatca ccgaaacgcg	3240
cgagacgaaa gggcctcgtg atacgcctat ttttataggt taatgtcatg ataataatgg	3300
tttcttagac gtcagggtggc acttttcggg gaaatgtgcg cggaaccctt atttgtttat	3360
ttttctaaat acattcaaatt atgtatccgc tcatgagaca ataaccctga taaatgcttc	3420
aataatattg aaaaaggaag agtatgagta ttcaacattt ccgtgtcgcc cttatttcct	3480
tttttgccgc attttgccct cctgtttttg ctcaccaga aacgctgggtg aaagtaaaag	3540
atgctgaaga tcagttgggt gcacgagtgg gttacatcga actggatctc aacagcggta	3600
agatccttga gagttttcgc cccgaagaac gttttccaat gatgagcact tttaaagttc	3660
tgctatgtgg cgcggtatta tcccgtattg acgccgggca agagcaactc ggtcgccgca	3720
tacactattc tcagaatgac ttgggtgagt actcaccagt cacagaaaag catcttacgg	3780
atggcatgac agtaagagaa ttatgcagtg ctgccataac catgagtgat aacactgcgg	3840
ccaacttact tctgacaacg atcggaggac cgaaggagct aaccgctttt ttgcacaaca	3900
tgggggatca tgtaactcgc cttgatcgtt gggaaccgga gctgaatgaa gccataccaa	3960
acgacgagcg tgacaccacg atgcctgtag caatggcaac aacgttgccg aaactattaa	4020
ctggcgaact acttactcta gtttccggc aacaattaat agactggatg gaggcggata	4080
aagttgcagg accacttctg cgctcggccc ttccggctgg ctggttttatt gctgataaat	4140
ctggagccgg tgagcgtggg tctcgcggta tcattgcagc actggggcca gatggtaagc	4200
cctcccgtat cgtagttatc tacacgacgg ggagtcaggc aactatggat gaacgaaata	4260
gacagatcgc tgagataggt gcctcactga ttaagcattg gtaactgtca gaccaagttt	4320
actcatatat acttttagatt gatttaaaac ttcatTTTTA atttaaaagg atctaggtga	4380
agatcctttt tgataatctc atgacaaaaa tcccttaacg tgagttttcg ttccactgag	4440

cgtcagaccc cgtagaaaag atcaaaggat cttcttgaga tccttttttt ctgcgcgtaa	4500
tctgctgctt gcaaacaaaa aaaccaccgc taccagcggg ggtttgtttg ccggatcaag	4560
agctaccaac tctttttccg aaggtaactg gcttcagcag agcgcagata ccaaatactg	4620
tccttctagt gtagccgtag ttaggccacc acttcaagaa ctctgtagca ccgcctacat	4680
acctcgctct gctaattcctg ttaccagtgg ctgctgccag tggcgataag tcgtgtctta	4740
ccgggttggg ctcaagacga tagttaccgg ataaggcgca gcggtcgggc tgaacggggg	4800
gttcgtgcac acagcccagc ttggagcgaa cgacctacac cgaactgaga tacctacagc	4860
gtgagctatg agaaagcgcc acgcttcccg aaggagagaaa ggcggacagg tatccggtaa	4920
gcggcagggg cggaacagga gagcgcacga gggagcttcc aggggggaaac gcctgggtatc	4980
tttatagtcc tgtcgggttt cgccacctct gacttgagcg tcgatttttg tgatgctcgt	5040
cagggggggcg gagcctatgg aaaaacgcca gcaacgcggc ctttttacgg ttcctggcct	5100
tttgctggcc ttttgctc	5118

<210> 47

<211> 5572

<212> DNA

<213> Secuencia Artificial

<220>

<223> AAV- CSK-SH5-SPc5-12-MVM-Luc-pA

<400> 47

acatgtcctg caggcagctg cgcgctcgct cgctcactga ggccgcccgg gcaaagcccg	60
ggcgtcgggc gacctttggt cgcccgccct cagtgagcga gcgagcgcg agagagggag	120
tggccaactc catcactagg ggttcctgcg gccggcgcg cacgcgtcag ttactcacc	180
agggattcag aggcagcact gctgaaccct gagcccttgg cacatcaggt tggctgtcag	240
aagtcggcct ttgtacatac acagttccct tgtgaggccc agctgcgtgt cctaggagcg	300
gggcctctct ccacagcaga gctcagcctc tcaagtgtat ggacagcacg ggtgcctgat	360
gggtggattt agccatgagt tgaaggtggc ttggggagaa tgagagttct agagataggg	420
agaaggggtt gccaatagga gagtggaatt cctgagcacc tcgtcacagg cagccgacag	480

aacatgagcc gcagggccca ggctatttat acctcgctg tcactatcag ggtccccaca	540
gctcccccca cctccagcca cacacagcag gtccttttgc tctttctggt cccttctcta	600
ctcctcccc tccctaccta aggtacccaa cgcgttacgt ggccaccgcc ttcggcacca	660
tcctcacgac acccaaatat ggcgacgggt gaggaatggt ggggagttat ttttagagcg	720
gtgaggaagg tgggcaggca gcaggtgttg gcgctctaaa aataactccc gggagttatt	780
tttagagcgg aggaatggtg gacacccaaa tatggcgacg gttcctcacc cgtcgccata	840
tttgggtgtc cgccctcggc cggggccgca ttcctggggg ccgggcggtg ctcccgccg	900
cctcgataaa aggctccggg gccggcggcg gcccacgagc tacccgagg agcgggaggc	960
gccaagctct agatctagaa agaggtaagg gtttaaggga tggttggttg gtgggggtatt	1020
aatgtttaat tacctggagc acctgcctga aatcactttt tttcaggttg gaagcttatg	1080
gaagatgcca aaaacattaa gaaggccca gcgccattct acccactcga ggacgggacc	1140
gccggcgagc agctgcacaa agccatgaag cgctacgccc tggtgcccgg caccatcgcc	1200
tttaccgacg cacatatcga ggtggacatt acctacgccg agtacttcga gatgagcgtt	1260
cggctggcag aagctatgaa gcgctatggg ctgaatacaa accatcggat cgtggtgtgc	1320
agcgagaata gcttgagtt cttcatgccc gtgttggttg ccctgttcat cgtgtgtgct	1380
gtggccccag ctaacgacat ctacaacgag cgcgagctgc tgaacagcat gggcatcagc	1440
cagcccaccg tcgtattcgt gagcaagaaa gggctgcaaa agatcctcaa cgtgcaaaag	1500
aagctaccga tcatacaaaa gatcatcatc atggatagca agaccgacta ccagggttc	1560
caaagcatgt acaccttcgt gacttcccat ttgccaccg gcttcaacga gtacgacttc	1620
gtgcccgaga gcttcgaccg ggacaaaacc atcgccctga tcatgaacag tagtggcagt	1680
accggattgc ccaagggcgt agccctaccg caccgcaccg cttgtgtccg attcagtc	1740
gcccgcgacc ccatcttcgg caaccagatc atccccgaca ccgctatcct cagcgtggtg	1800
ccatttcacc acggcttcgg catgttcacc acgctgggct acttgatctg cggctttcgg	1860
gtcgtgctca tgtaccgctt cgaggaggag ctattcttgc gcagcttgca agactataag	1920
attcaatctg ccctgctggt gccacacta ttagcttct tcgctaagag cactctcatc	1980

gacaagtacg acctaagcaa cttgcacgag atcgccagcg gcggggcgcc gctcagcaag	2040
gaggtaggtg aggccgtggc caaacgcttc cacctaccag gcatccgcca gggctacggc	2100
ctgacagaaa caaccagcgc cattctgata acccccgaag gggacgacaa gcctggcgca	2160
gtaggcaagg tgggtgccctt cttcaggagg aaggtggtgg acttgacac cggtgaagaca	2220
ctgggtgtga accagcgcgg cgagctgtgc gtccgtggcc ccatgatcat gagcggctac	2280
gttaacaacc ccgaggctac aaacgctctc atcgacaagg acggctggct gcacagcggc	2340
gacatcgctt actgggacga ggacgagcac ttcttcatcg tggaccggct gaagagcctg	2400
atcaaataca agggctacca ggtagcccca gccgaactgg agagcatcct gctgcaacac	2460
cccaacatct tcgacgccgg ggtcgccggc ctgcccgcg acgatgccgg cgagctgccc	2520
gccgcagtcg tcgtgctgga acacggtaaa accatgaccg agaaggagat cgtggactat	2580
gtggccagcc aggttacaac cgccaagaag ctgcgcggtg gtgttgtgtt cgtggacgag	2640
gtgcctaaag gactgaccgg caagttggac gcccgaaga tccgcgagat tctcattaag	2700
gccaagaagg gcggcaagat cgccgtgtaa ttcgaaacgt tcggtccatc ttgagcatct	2760
gacttctggc taaataaaag atctttatct tcattagatc tgtgtgttgg ttttttgtgt	2820
gcgtcgagat ccacggccgc aggaaccctt agtgatggag ttggccactc cctctctgcg	2880
cgctcgctcg ctactgagg ccgggcgacc aaaggtcgcc cgacgcccg gctttgccc	2940
ggcggcctca gtgagcgagc gagcgcgcag ctgcctgcag gggcgcctga tgcggtatct	3000
tctccttacg catctgtgcg gtatttcaca ccgcatacgt caaagcaacc atagtacgcg	3060
ccctgtagcg gcgcattaag cgcggcgggt gtggtggtta cgcgacgcgt gaccgctaca	3120
cttgccagcg ccctagcgcc cgctcctttc gctttcttcc cttcctttct cgccacgttc	3180
gccggctttc cccgtcaagc tctaaatcgg gggctccctt tagggttccg atttagtgct	3240
ttacggcacc tcgaccccaa aaaacttgat ttgggtgatg gttcacgtag tgggccatcg	3300
ccctgataga cggtttttcg ccctttgacg ttggagtcca cgttctttta tagtggaactc	3360
ttgttccaaa ctggaacaac actcaaccct atctcgggct attcttttga tttataaggg	3420
attttgccga tttcggccta ttggttaaaa aatgagctga ttttaacaaa atttaacgcg	3480

aatTTTaaca aaatattaac gTTTacaatt ttatggtgca ctctcagtac aatctgctct	3540
gatgccgcat agttaagcca gccccgacac ccgccaacac ccgctgacgc gccctgacgg	3600
gcttgtctgc tcccggcatc cgcttacaga caagctgtga ccgtctccgg gagctgcatg	3660
tgtcagaggt tttcaccgtc atcaccgaaa cgcgcgagac gaaagggcct cgtgatacgc	3720
ctatTTTTat aggttaatgt catgataata atggtttctt agacgtcagg tggcactttt	3780
cggggaaatg tgcgcggaac ccctatttgt ttatTTTTct aaatacattc aaatatgtat	3840
ccgctcatga gacaataacc ctgataaatg cttcaataat attgaaaaag gaagagtatg	3900
agtattcaac atttccgtgt cgcccttatt ccctTTTTtg cggcattttg ctttctgtt	3960
tttgtcacc cagaaacgt ggtgaaagta aaagatgctg aagatcagtt ggggtgcacga	4020
gtgggttaca tcgaactgga tctcaacagc ggtaagatcc ttgagagttt tcgccccgaa	4080
gaacgttttc caatgatgag cacttttaaa gttctgctat gtggcgcggt attatcccgt	4140
attgacgccg ggcaagagca actcggtcgc cgcatacact attctcagaa tgacttggtt	4200
gagtactcac cagtcacaga aaagcatctt acggatggca tgacagtaag agaattatgc	4260
agtgtgccca taaccatgag tgataacact gcggccaact tacttctgac aacgatcgga	4320
ggaccgaagg agctaaccgc ttttttgcac aacatggggg atcatgtaac tcgccttgat	4380
cgttgggaac cggagctgaa tgaagccata ccaaacgacg agcgtgacac cacgatgcct	4440
gtagcaatgg caacaacgtt gcgcaaacta ttaactggcg aactacttac tctagcttcc	4500
cggcaacaat taatagactg gatggaggcg gataaagttg caggaccact tctgcgctcg	4560
gcccttccgg ctggctggtt tattgctgat aaatctggag ccggtgagcg tgggtctcgc	4620
ggtatcattg cagcactggg gccagatggt aagccctccc gtatcgtagt tatctacacg	4680
acggggagtc aggcaactat ggatgaacga aatagacaga tcgctgagat aggtgcctca	4740
ctgattaagc attggtaact gtcagaccaa gtttactcat atatacttta gattgattta	4800
aaacttcatt tttaatTTaa aaggatctag gtgaagatcc tttttgataa tctcatgacc	4860
aaaatccctt aacgtgagtt ttcgttcac tgagcgctcag accccgtaga aaagatcaaa	4920
ggatcttctt gagatccttt ttttctgcgc gtaatctgct gcttgcaaac aaaaaaacca	4980

ccgctaccag cggtggtttg tttgccggat caagagctac caactctttt tccgaaggta	5040
actggcttca gcagagcgca gataccaaat actgtccttc tagtgtagcc gtagttaggc	5100
caccacttca agaactctgt agcaccgcct acatacctcg ctctgctaata cctgttacca	5160
gtggctgctg ccagtggcga taagtcgtgt cttaccgggt tggactcaag acgatagtta	5220
ccggataagg cgcagcggtc gggctgaacg gggggttcgt gcacacagcc cagcttggag	5280
cgaacgacct acaccgaact gagataccta cagcgtgagc tatgagaaag cgccacgctt	5340
cccgaaggga gaaaggcgga caggtatccg gtaagcggca gggtcggaac aggagagcgc	5400
acgagggagc ttccaggggg aaacgcctgg tatctttata gtcctgtcgg gtttcgccac	5460
ctctgacttg agcgtcgatt tttgtgatgc tcgtcagggg ggcggagcct atggaaaaac	5520
gccagcaacg cggccttttt acggttcctg gccttttgct ggccttttgc tc	5572

<210> 48
 <211> 20
 <212> DNA
 <213> Secuencia Artificial Sequence

<220>
 <223> Cebador directo Luc para titulación

<400> 48	
cccaccgtcg tattcgtgag	20

<210> 49
 <211> 21
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Cebador inverso Luc para valoración

<400> 49	
tcaggcgat ggttttgtcc c	21

<210> 50
 <211> 19
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Cebador directo de beta-sarcoglicano para titulaci3n

<400> 50
 agggatgggtt ggttggtgg 19

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

<220>
 <223> Cebador inverso de beta-sarcoglicano para valoraci3n

<400> 51
 ggcaggtgct ccaggtaat 19

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

<220>
 <223> Cebador directo de beta-sarcoglicano para RT-PCR

<400> 52
 catcacaagt gacatcggca 20

<210> 53
 <211> 19
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Cebador inverso de beta-sarcoglicano para RT-PCR

<400> 53
 tggcagccca tgttctggc 19

<210> 54
 <211> 20
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Cebador directo GAPDH para RT-PCR

<400> 54
tgtgtccgtc gtggatctga 20

<210> 55
<211> 22
<212> DNA
<213> Secuencia Artificial

<220>
<223> Cebador inverso GAPDH para RT-PCR

<400> 55
gcctgcttca ccaccttctt ga 22

<210> 56
<211> 798
<212> DNA
<213> Secuencia Artificial

<220>
<223> Promotor MHCK7

<400> 56
tagttcatag cccatatatg gagttccgct agaagctgca tgtctaagct agacccttca 60
gattaaaaat aactgaggta agggcctggg taggggaggt ggtgtgagac gctcctgtct 120
ctcctctatc tgcccatcgg ccctttgggg aggaggaatg tgcccaagga ctaaaaaaag 180
gccatggagc cagagggggcg agggcaacag acctttcatg ggcaaacctt ggggcccctgc 240
tgtctagcat gcccactac gggcttaggc tgcccatgta aggaggcaag gcctggggac 300
acccgagatg cctggttata attaaccag acatgtggct gcccccccc ccccaacacc 360
tgctgcctct aaaaataacc ctgtccctgg tggatcccct gcatgcgaag atcttcgaac 420
aaggctgtgg gggactgagg gcaggctgta acaggcttgg gggccagggc ttatacgtgc 480
ctgggactcc caaagtatta ctgttccatg ttcccggcga agggccagct gtccccgcc 540
agctagactc agcacttagt ttaggaacca gtgagcaagt cagcccttgg ggcagcccat 600
acaaggccat ggggctgggc aagctgcacg cctgggtccg ggggtgggcac ggtgcccggg 660
caacgagctg aaagctcatc tgctctcagg ggcccctccc tggggacagc ccctcctggc 720

tagtcacacc ctgtaggctc ctctatataa cccaggggca caggggctgc cctcattcta	780
ccaccacctc cacagcac	798

<210> 57
 <211> 1426
 <212> DNA
 <213> Secuencia Artificial

<220>
 <223> Promotor desmin

<400> 57	
acacacctac tagtaacccc tccagctggt gatggcaggt ctagggtagg accagtgact	60
ggctcctaata cgagcactct attttcaggg tttgcattcc aaaaggggtca ggtccaagag	120
ggacctggag tgccaagtgg aggtgtagag gcacggccag taccatgga gaatggtgga	180
tgtccttagg ggtagcaag tgccgtgtgc taaggagggg gctttggagg ttgggcaggc	240
cctctgtggg gctccatttt tgtgggggtg ggggctggag cattataggg ggtgggaagt	300
gattggggct gtcaccctag ccttccttat ctgacgcca cccatgcctc ctcaggtacc	360
ccctgcccc cacagctcct ctcctgtgcc ttgtttcca gccatgcgtt ctcctctata	420
aatacccgct ctggtatttg gggttggcag ctgttgctgc caggagatg gttgggttga	480
catgcggctc ctgacaaaac acaaaccct ggtgtgtgtg ggcgtgggtg gtgtgagtag	540
ggggatgaat caggaggggg gcgggggacc cagggggcag gagccacaca aagtctgtgc	600
gggggtggga gcgcacatag caattgaaa ctgaaagctt atcagaccct ttctggaaat	660
cagcccactg ttataaaact tgaggcccca ccctcgacag taccggggag gaagagggcc	720
tgactagtc cagagggaaa ctgaggctca gggctagctc gcccatagac atacatggca	780
ggcaggcttt ggccaggatc cctccgctg ccaggcgtct ccctgccctc ccttcctgcc	840
tagagacccc caccctcaag cctggctggt ctttgcctga gacccaaacc tcttcgactt	900
caagagaata tttaggaaca aggtggttta gggcctttcc tggaacagg ctttgaccct	960
ttaagaaatg acccaaagtc tctccttgac caaaaagggg accctcaaac taaagggaag	1020
cctctcttct gctgtctccc ctgacccac tccccccac cccaggacga ggagataacc	1080

agggctgaaa gaggcccgcc tgggggctgc agacatgctt gctgcctgcc ctggcgaagg	1140
attggcaggc ttgcccgtca caggaccccc gctggctgac tcaggggagc aggcctcttg	1200
cgggggagct ggcctccccg ccccccacggc cacgggcccgc cctttcctgg caggacagcg	1260
ggatcttgca gctgtcaggg gaggggaggc gggggctgat gtcaggaggg atacaaatag	1320
tgccgacggc tggggggcct gtctcccctc gccgcatcca ctctccggcc ggccgcctgc	1380
ccgccgcctc ctccgtgcgc ccgccagcct cgcccgcgcc gtcacc	1426

<210> 58
 <211> 2859
 <212> DNA
 <213> Homo sapiens

<400> 58	
atgggagtg ggcacccgcc ctgctccac cggctcctgg ccgtctgcgc cctcgtgtcc	60
ttggcaaccg ctgcactcct ggggcacatc ctactccatg atttcctgct ggttccccga	120
gagctgagt gtcctcccc agtcctggag gagactcacc cagctacca gcaggagacc	180
agcagaccag ggccccggga tgcccaggca cccccggcc gtcccagagc agtgcccaca	240
cagtgcgacg tccccccaa cagccgcttc gattgcgccc ctgacaaggc catcaccag	300
gaacagtgcg agggccgcgg ctgttgctac atccctgcaa agcaggggct gcaggagacc	360
cagatggggc agccctggtg cttcttccca cccagctacc ccagctacaa gctggagaac	420
ctgagctcct ctgaaatggg ctacacggcc accctgacct gtaccacccc caccttcttc	480
cccaaggaca tcctgaccct gcggctggac gtgatgatgg agactgagaa ccgcctccac	540
ttcacgatca aagatccagc taacaggcgc tacgaggtgc cttggagac cccgcatgtc	600
cacagccggg caccgtcccc actctacagc gtggagttct ccgaggagcc cttcgggggtg	660
atcgtgcgcc ggagctgga cggccgcgtg ctgctgaaca cgacggtggc gcccctgttc	720
tttgcgacc agttccttca gctgtccacc tcgctgccct cgcagtatat cacaggcctc	780
gccgagcacc tcagtcccct gatgctcagc accagctgga ccaggatcac cctgtggaac	840
cgggaccttg cgcccacgcc cgggtgcgaac ctctacgggt ctacccttt ctacctggcg	900
ctggaggacg gcgggtcggc acacggggtg ttcctgctaa acagcaatgc catggatgtg	960

gtcctgcagc cgagccctgc ccttagctgg aggtcgacag gtgggatacct ggatgtctac	1020
atcttcctgg gcccagagcc caagagcgtg gtgcagcagt acctggacgt tgtgggatac	1080
ccgttcatgc cgccatactg gggcctgggc ttccacctgt gccgctgggg ctactcctcc	1140
accgctatca cccgccaggt ggtggagaac atgaccaggg cccacttccc cctggacgtc	1200
cagtggaaacg acctggacta catggactcc cggagggact tcacgttcaa caaggatggc	1260
ttccgggact tcccggccat ggtgcaggag ctgcaccagg gcggccggcg ctacatgatg	1320
atcgtggatc ctgccatcag cagctcgggc cctgccggga gctacaggcc ctacgacgag	1380
ggtctgcgga ggggggtttt catcaccaac gagaccggcc agccgctgat tgggaaggta	1440
tggcccgggt ccaactgcctt ccccgaactt accaacccca cagccctggc ctggtgggag	1500
gacatggtgg ctgagttcca tgaccaggtg cccttcgacg gcatgtggat tgacatgaac	1560
gagccttcca acttcatcag gggctctgag gacggctgcc ccaacaatga gctggagaac	1620
ccaccctacg tgcctgggggt ggttgggggg accctccagg cggccaccat ctgtgcctcc	1680
agccaccagt ttctctccac aactacaac ctgcacaacc tctacggcct gaccgaagcc	1740
atgcctccc acagggcgct ggtgaaggct cgggggacac gccatttgt gatctccgc	1800
tcgaccttg ctggccacgg ccgatacgcc ggccactgga cgggggacgt gtggagctcc	1860
tgggagcagc tcgcctcctc cgtgccagaa atcctgcagt ttaacctgct gggggtgcct	1920
ctggtcgggg ccgacgtctg cggcttctg ggcaacacct cagaggagct gtgtgtgcgc	1980
tggaccagc tgggggcctt ctacccttc atgcggaacc acaacagcct gctcagtctg	2040
ccccaggagc cgtacagctt cagcgagccg gccagcagg ccatgaggaa ggccctcacc	2100
ctgcgctacg cactcctccc ccacctctac aactgttcc accaggccca cgtcgcgggg	2160
gagaccgtgg cccggccctt cttcctggag ttccccaagg actctagcac ctggactgtg	2220
gaccaccagc tcctgtgggg ggaggccctg ctcatcacc cagtgtcca ggccgggaag	2280
gccgaagtga ctggctactt ccccttgggc acatggtacg acctgcagac ggtgccagta	2340
gaggcccttg gcagcctccc acccccacct gcagctcccc gtgagccagc catccacagc	2400
gaggggcagt gggtagcgt gccggcccc ctggacacca tcaacgtcca cctccgggct	2460

gggtacatca tccccctgca gggccctggc ctcacaacca cagagtcccg ccagcagccc	2520
atggcccttg ctgtggccct gaccaagggt ggggaggccc gaggggagct gttctgggac	2580
gatggagaga gcctggaagt gctggagcga ggggcctaca cacaggtcat cttcctggcc	2640
aggaataaca cgatcgtgaa tgagctggta cgtgtgacca gtgaggagc tggcctgcag	2700
ctgcagaagg tgactgtcct gggcgtggcc acggcgcccc agcaggtcct ctccaacggt	2760
gtccctgtct ccaacttcac ctacagcccc gacaccaagg tcctggacat ctgtgtctcg	2820
ctgttgatgg gagagcagtt tctcgtcagc tgggtgtag	2859

<210> 59

<211> 2859

<212> DNA

<213> Secuencia Artificial

<220>

<223> Gen de la alfa-glucosidasa ácida humana con codones optimizados (hGAACO)

<400> 59

atgggctca gacatcctcc atgttctcac agactgctgg ccgtgtgtgc tctggtgtct	60
cttgctacag ctgccctgct gggacatatc ctgctgcacg attttctgct ggtgcccaga	120
gagctgtctg gcagctctcc tgtgctggaa gaaacacacc ctgcacatca gcaggcgcc	180
tctagacctg gacctagaga tgctcaagcc catcctggca gacctagagc cgtgcctaca	240
cagtgtgacg tgccacctaa cagcagattc gactgcgccc ctgacaaggc catcacacaa	300
gagcagtgtg aagccagagg ctgctgctac attcctgcca aacaaggact gcaggcgct	360
cagatgggac agccttggtg cttcttccca ccatcttacc ccagctacaa gctggaaaac	420
ctgagcagca gcgagatggg ctacaccgcc aactgacca gaaccacacc tacattcttc	480
ccaaaggaca tcctgacact gcggctggac gtgatgatgg aaaccgagaa ccggctgcac	540
ttcaccatca aggacccgc caatagaaga tacgaggtgc ccctggaac ccctcacgtg	600
cactctagag ccccatctcc actgtacagc gtggaattca gcgaggaacc ctttggcgtg	660
atcgtgcgga gacagctgga tggcagagtg ctgctgaata ccacagtggc ccctctgttc	720
ttcgccgacc agtttctgca gctgagcaca agcctgccta gccagtatat cacaggcctg	780

gccgaacacc tgtctccact gatgctgagc accagctgga ccagaatcac cctgtggaac	840
agagatctgg cccctacacc tggcgccaat ctgtacggct ctcacccttt ttatctggcc	900
ctggaagatg gcggaagcgc ccacggtgtc tttctgctga acagcaacgc catggacgtg	960
gtgctgcaac catctcctgc tctgtcttgg agaagcaccg gcggcatcct ggacgtgtac	1020
atctttctgg gacccgagcc taagagcgtg gtgcagcagt atctggatgt cgtgggctac	1080
cccttcatgc ctccttattg gggcctgggc ttccacctgt gtagatgggg atacagctcc	1140
accgccatca ccagacaggt ggtggaaaac atgaccggg ctcacttccc actggatgtg	1200
cagtggaacg acctggacta catggactcc agacgggact tcacctttaa caaggacggc	1260
ttcagagact tccccgcat ggtgcaagaa ctgcatcaag gcggcagacg gtacatgatg	1320
atcgtggatc ctgccatctc ttctagcggc cctgccggaa gctacagacc ttatgatgag	1380
ggcctgagaa gaggcgtgtt catcaccaat gagacaggcc agcctctgat cggcaaagtg	1440
tggcctggaa gcaccgcctt tccagacttc accaatccaa ccgctctggc ttggtgggaa	1500
gatatggtgg ccgagttcca cgatcaggtg cccttcgatg gcatgtggat cgacatgaac	1560
gagcccagca acttcatcag gggcagcgag gatggctgcc ccaacaacga actggaaaat	1620
cctccttacg tgccaggcgt tgtcggagga aactgcagg ccgccacaat ttgtgccagc	1680
agccatcagt ttctgagcac ccactacaac ctgcacaacc tgtacggcct gaccgaggcc	1740
attgcctctc atagagccct ggttaaggcc agaggcacc ggccctttgt gatcagcaga	1800
agcacatttg ccggccacgg cagatatgcc ggacattgga caggggacgt ttggtctagt	1860
tgggagcagc tggcctctag cgtgcccag atcctgcagt ttaatctgct gggagtgtcc	1920
ctcgtgggag ccgatgtttg tggatttctg ggcaacacct ccgaggaact gtgcgtcaga	1980
tggacacagc tgggcgcctt ctatcccttc atgagaaacc acaacagcct gctgagcctg	2040
cctcaagagc cttacagctt tagcgaaccc gcacagcagg ccatgagaaa ggccctgact	2100
ctgagatacg ctctgctgcc ccacctgtac accctgtttc atcaagctca tgtggccggc	2160
gagacagtgg ccagaccact gtttctggaa ttccccaagg acagcagcac ctggacagtg	2220
gatcatcagc tgctctgggg agaagccctg ctcattacac ctgtgctgca ggctggcaag	2280

gccgaagtga caggatactt tcccctcggc acttggtacg acctgcagac agttcctgtg	2340
gaagctctgg gatctctgcc tccacctcct gctgctccta gagagcctgc cattcactct	2400
gaaggccagt gggttacact gcccgcctcca ctggacacca tcaatgtgca cctgagagcc	2460
ggctacatca tccctctgca aggccctgga ctgaccacaa ccgaaagcag acagcagcca	2520
atggctctgg ccgtggctct gacaaaaggc ggagaagcta gaggcgaact gttctgggat	2580
gacggcgaga gcctggaagt gctggaacgg ggagcctaca cacaagtgat ctttctcgcc	2640
cggaacaaca ccatcgtgaa cgaactcgtc agagtgacca gtgaaggtgc cggactgcag	2700
ctccagaaag tgacagtgct tggagtggcc acagcacccc agcaggtttt gtctaattggc	2760
gtgcccgtgt ccaacttcac atacagccct gacaccaagg tgctggacat ctgtgtgtct	2820
ctgctgatgg gcgagcagtt cctggtgtcc tgggtgtga	2859