SEQUENCE LISTING

<110> Universität Wien

<120> Novel expression regulating RNA-molecules and uses thereof

<130> X3643 PCT S3

<150> EP15162198.4
<151> 2015-04-01

<160> 139

<170> BiSSAP 1.3

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grhwdsatbm grkmrvkdba gca 23

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<211> 51
<212> DNA
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<211> 55
<212> DNA
<213> Artificial Sequence

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<223> RAP ID# 10070

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<210> 28
<211> 48
<212> DNA
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<220>
<223> RAP ID# 15592

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tacatcagcc ctgcaatcag caatcccggc agcaacactc cccagcca 48

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<220>
<223> RAP ID# 5039

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<212> DNA
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<220>
<223> RAP ID# 2136

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<210> 31
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 1800

<400> 31

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<210> 32
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 3930

<400> 32
aacccttctg acgatcccat tgctgcatca caagccgtag ttc 43

<210> 33
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 11599

<400> 33
tgccagatca gaacgcagca tttcctcaac atcttcacca atgttca 47

<210> 34
<211> 53
<212> DNA
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<220>
<223> RAP ID# 15003

<400> 34
caagccacca catcgcaaat gtgccaggag cgacctgttc ttgttcaatt tct 53

<210> 35
<211> 61
<212> DNA
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<223> RAP ID# 9533

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c 61

<210> 36
<211> 51
<212> DNA
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<220>
<223> RAP ID# 803

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<210> 37
<211> 43
<212> DNA
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<400> 37
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<210> 38
<211> 43
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<400> 38
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<220>
<223> RAP ID# 1510

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<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 10243

<400> 40
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<210> 41
<211> 78
<212> DNA
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<220>
<223> RAP ID# 10822

<400> 41
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gtactggatc ttctttgc 78

<210> 42
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> rut Rho termination sequence

<400> 42
cccttccttc tccccatcgc tacctcatat ccgcacctcc tcaaacgcta cctcgaccag 60

cctccctccc tccc 74

<210> 43
<211> 45
<212> DNA

<213> Artificial Sequence

<220>
<223> rrnB intrinsic terminator

<400> 43
aaacgaaagg ctcagtcgga agactgggcc tttcgtttta tctgt 45

<210> 44
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> T7t intrinsic terminator

<400> 44
aacccttgg ggcctctaaa cgggtcttga ggggtttttt t 41

<210> 45
<211> 202
<212> DNA
<213> Artificial Sequence

<220>
<223> T7t-tR2-rrnB triple terminator insert

<220>
<221> terminator
<222> 14..55
<223> /note="T7 terminator"

<220>
<221> terminator
<222> 59..102
<223> /note="tR2 terminator"

<220>
<221> terminator
<222> 132..176
<223> /note="rrnB triple terminator insert"

<400> 45
tctagatcgg tggaaacccc ttggggcctc taaacgggtc ttgaggggtt tttttaccgt 60

taataacagg cctgctggta atcgcaggcc tttttatttt gttacacgca cagcggctag 120

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tgtttaactt ttactttatg ta 202

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<220>
<223> fixFW (primer)

<400> 46
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<210> 47
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> fixRV_multi (primer)

<400> 47
tagcccggga tcctcggggc tg 22

<210> 48
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> lacZ_qPCR_FW

<400> 48
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<210> 49
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> lacZ_qPCR_RV

<400> 49
caggctgcgc aactgttggg 20

<210> 50
<211> 20
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<220>
<223> gapA_FW

<400> 50
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<210> 51
<211> 20
<212> DNA
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<220>
<223> gapA_RV

<400> 51
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<210> 52
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<220>
<223> nadA_before15_FW

<400> 52
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<210> 53
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<220>

<223> nadA_before15_RV

<400> 53
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<210> 54
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<220>
<223> nadA_after15_FW

<400> 54
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<210> 55
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> nadA_after15_RV

<400> 55
tgcgcagtgt aagaggggc 20

<210> 56
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> P1: before RAP

<400> 56
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<210> 57
<211> 29
<212> DNA
<213> Artificial Sequence

<220>

<223> P2: after RAP

<400> 57
ttattatcta gaggatcccc gggtgcatt 29

<210> 58
<211> 88
<212> DNA
<213> Artificial Sequence

<220>
<223> T7A1

<220>
<221> promoter
<222> 1..67
<223> /note="T7 promoter"

<400> 58
tccagatccc gaaaatttat caaaaagagt attgacttaa agtctaacct ataggatact 60

tacagccatc gagagggaca cggcgaat 88

<210> 59
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> GFP_FW

<400> 59
tggagagggt gaaggtgat 19

<210> 60
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> GFP_RV

<400> 60
agcattgaac accataagtc aaag 24

<210> 61
<211> 25
<212> RNA
<213> Artificial Sequence

<220>
<223> 5’-phosphorylated RNA adapter (for 3’RACE experiments)

<400> 61
aauggacucg uaucacaccc gacaa 25

<210> 62
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Forward primer 3’RACE

<400> 62
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<210> 63
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer 3’RACE

<400> 63
ttgtcgggtg tgatacgagt ccatt 25

<210> 64
<211> 114
<212> DNA
<213> Artificial Sequence

<220>
<223> 108nt insert to introduce additional, unique XhoI and SacI
restriction enzyme recognition sites into plasmid pWM1015
(resulting in pWM3110)

<400> 64

gaattcatcg cgtgtgcgta ttcgatcgaa ttggatcagc tcgcgtccag gtagcgaaag 60

ccatttattg atggaccact cgagatcact agccgagctc taattgctaa attc 114

<210> 65
<211> 2695
<212> DNA
<213> Artificial Sequence

<220>
<223> pWM3110

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cgccttttaa agcaatttag aaccactggc aaagcttatt ttgagtggga cgagttttgt 180

aaagttatgg atataccaca agattataga caaagcgaag tcgataaatg gattttaaac 240

ctgctatcaa agaactttct aaagaacagc aatctttttg accaaattag agtgcctttt 300

aaaaatcttg cttatgaaaa agaaaaaacc gcaggcgtgg gcgtggcggc aaagtttcag 360

gcattagctt tacttttaaa cctgaaaata tcgaaatgca aaagctagaa aatgaaagtc 420

aaaaaataat gagcgatgag caaaaatatt taaagatttt aaacaatatg aaacttaatc 480

aagctagatt taattataat gacaagcttt ggcagtttaa cgattttgat tttaatgaat 540

ttaaaattat tgcagtagag cttgtaagag atgaatacga gaatttaaac tttggaaatc 600

atatgcactt taatgctaaa aatcaagagc agtttttaa atgattgata ctttaggaat 660

gggattaggt aaaatttgct ataattatat ctttgaagga tacaagctat ccgccacttg 720

tgccaagtgt cgagcttgta aggggtgcaa ccccttaacc ccactaataa aaatcaacta 780

aatcagtgaa tgatttttga attttattaa aacaccaaaa aaggaaaatt taaaaatgca 840

aaaacatatc ccgaagtgca tagcttagaa gaaagccttg cgatacttaa aaaatataaa 900

gatgatttga ctaaagagca atacgaagcc ataagatcaa atataggtaa ttttgcaata 960

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gtcaaaagtt gccaccgctc attgcaatcc taaaaaacaa cctgcattaa accacaatga 1140

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cgcttcatag agtaattctg taaaggtcca attctcgttt tcatacctcg gtataatctt 2640

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<210> 66
<211> 32
<212> DNA
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<220>
<223> promoter of pWM3110 (constitutive promoter)

<400> 66
tttaagtctt agtttagttt ttttggtata at 32

<210> 67
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> arabinose-inducible promoter

<400> 67
gtttctccat acccgttttt ttgggctagc 30

<210> 68
<211> 114
<212> DNA
<213> Artificial Sequence

<220>
<223> Insert for integration of rut into pWM3100 (rut sequence in bold)

<400> 68
gagctctgcc gtaccgtcta tcaaactcaa cgacccttc cttctcccca tcgctacctc 60

atatccgcac ctcctcaaac gctacctcga ccagcctccc tccctcccgt gctc 114

<210> 69

<211> 183
<212> DNA
<213> Artificial Sequence

<220>
<223> Insert for integration of rrnB intrinsic terminator into pWM3100
(rrnB sequence in bold)

<400> 69
gagctctgcc gtaccgtcta tcaaactcaa cgacaccata gcgtcctgga tcattaacgt 60

gatacgcaga taccgttgca ccactctgtt cacagcggct agcacgtcga caaacgaaag 120

gctcagtcgg aagactgggc ctttcgtttt atctgttaat tttgtttaac tttaggagtg 180

ctc 183

<210> 70
<211> 179
<212> DNA
<213> Artificial Sequence

<220>
<223> Insert for integration of T7t intrinsic terminator into pWM3100
(T7t sequence in bold)

<400> 70
gagctctgcc gtaccgtcta tcaaactcaa cgacaccata gcgtcctgga tcattaacgt 60

gatacgcaga taccgttgca ccactctgtt cacagcggct agcacgtcga caacccccttg 120

gggcctctaa acgggtcttg aggggttttt tttaattttg tttaacttta ggagtgctc 179

<210> 71
<211> 214
<212> DNA
<213> Artificial Sequence

<220>
<223> Insert for integration of the three intrinsic terminators T7t,
tR2 and rrnB into pWM 3100

<400> 71
gagctctcta gatcggtgga aacccccttgg ggcctctaaa cgggtcttga ggggtttttt 60

taccgttaat aacaggcctg ctggtaatcg caggcctttt tattttgtta cacgcacagc 120

ggctagcacg acgacaaacg aaaggctcag tcggaagact gggcctttcg ttttatctgt 180

taattttgtt taacttttac tttatgtagt gctc 214

<210> 72
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 5713_mut_loop2

<400> 72
gacaacatga gggcggttca gcagcacta 29

<210> 73
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 5713_mut_2gg

<400> 73
gacggcatga gggcagttca gcagcacta 29

<210> 74
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 5713_mut_3gg

<400> 74
gacggcatga gggcagggca gcagcacta 29

<210> 75
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> RAP ID# 5713_mut_0-6

<400> 75
gacaacatga gaacagttca gca 23

<210> 76
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 5713_mut_stem3

<400> 76
gacaacaaca gaacagttgt gcagcacta 29

<210> 77
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 5713_mut_noStruct

<400> 77
gacaacaccc gaacagtccc gcagcacta 29

<210> 78
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> +70 RBS

<400> 78
taataactat acgtatggta atcgcaggcc ttattccgag ctcaataatt gttaacttta 60

agaaggagga 70

<210> 79
<211> 3150
<212> DNA
<213> Artificial Sequence

<220>
<223> lacZ gene in pBAD13

<400> 79
atgtcgttta ctttgaccaa caagaacgtg attttcgttg ccggtctggg aggcattggt 60

ctggacacca gcaaggagct gctcaagcgc gatcccgtcg ttttacaacg tcgtgactgg 120

gaaaaccctg gcgttaccca acttaatcgc cttgcagcac atccccctttt cgccagctgg 180

cgtaatagcg aagaggcccg caccgatcgc ccttcccaac agttgcgcag cctgaatggc 240

gaatggcgct ttgcctggtt tccggcacca gaagcggtgc cggaaagctg gctggagtgc 300

gatcttcctg aggccgatac tgtcgtcgtc ccctcaaact ggcagatgca cggttacgat 360

gcgcccatct acaccaacgt gacctatccc attacggtca atccgccgtt tgttcccacg 420

gagaatccga cgggttgtta ctcgctcaca tttaatgttg atgaaagctg gctacaggaa 480

ggccagacgc gaattatttt tgatggcgtt aactcggcgt ttcatctgtg gtgcaacggg 540

cgctgggtcg gttacggcca ggacagtcgt ttgccgtctg aatttgacct gagcgcattt 600

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ctggaagatc aggatatgtg gcggatgagc ggcattttcc gtgacgtctc gttgctgcat 720

aaaccgacta cacaaatcag cgatttccat gttgccactc gctttaatga tgatttcagc 780

cgcgctgtac tggaggctga agttcagatg tgcggcgagt tgcgtgacta cctacgggta 840

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gaaattatcg atgagcgtgg tggttatgcc gatcgcgtca cactacgtct gaacgtcgaa 960

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cacgagcatc atcctctgca tggtcaggtc atggatgagc agacgatggt gcaggatatc 1200

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ctgacggaag caaaacacca gcagcagttt ttccagttcc gtttatccgg gcaaaccatc 1980

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ttcaacatca gccgctacag tcaacagcaa ctgatggaaa ccagccatcg ccatctgctg 3000

cacgcggaag aaggcacatg gctgaatatc gacggtttcc atatggggat tggtggcgac 3060

gactcctgga gcccgtcagt atcggcggaa ttacagctga gcgccggtcg ctaccattac 3120

cagttggtct ggtgtcaaaa ataataataa 3150

<210> 80
<211> 99
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<220>
<223> cobC-derived +99 nt insert

<400> 80
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gatatcaatg gcgctccaac acccctggtc aacgcgaaa 99

<210> 81
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> +49 nt insert

<400> 81
tttgttactg gttaacctga aacgccagtc tgcccatacg ccactgcgt 49

<210> 82
<211> 30
<212> DNA
<213> Artificial Sequence

<220>

<223> Forward primer: pET21_Insert_FW_NheI

<400> 82
atgctagcac ccgttttttt gggctagaat 30

<210> 83
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Reverse primer: pET21_Insert_RV_HindIII

<400> 83
ataagctttt attattattt ttgacaccag ac 32

<210> 84
<211> 18
<212> DNA
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<220>
<223> inhibiting RAP consensus sequence

<400> 84
wydamghmsh krmwsdwm 18

<210> 85
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<220>
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<222> 3
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<220>
<221> misc_feature
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<223> /note="wherein "N" may be A or T or C or G"

<400> 85
gmnkatyvsn tk 12

<210> 86
<211> 10
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<220>
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<400> 86
gccakgakcg 10

<210> 87
<211> 11
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<220>
<223> inhibiting RAP consensus sequence

<400> 87
bhmvdsvrsr w 11

<210> 88
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<220>
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<400> 88
cgggcatatt gcgtgatttg tgccaaccga tgattacttt cccctgc 47

<210> 89
<211> 61
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<213> Artificial Sequence

<220>
<223> RAP ID# 1436

<400> 89
cagcgccatg agcgtgatcc acataccaat aaattcgtcc cagacaatgc tgccatgatc 60

g 61

<210> 90
<211> 35
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<220>
<223> RAP ID# 6819

<400> 90
ccagtcggca aacattccca tccagacacc aacca 35

<210> 91
<211> 49
<212> DNA
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<220>
<223> RAP ID# 1760

<400> 91
accatcaacc actgaccgac gattagctta cgcagttgcg ctcgccctg 49

<210> 92
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 1086

<400> 92
gcgtttcaaa tgcgcatcaa cctgccacac tcccccaca 39

<210> 93
<211> 63
<212> DNA
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<220>

<223> RAP ID# yh1

<400> 93
tcatagacaa gacaatccta agcaaaaaga acaaagctgt aggcatcata ctacctgact 60

atc 63

<210> 94
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh2

<400> 94
gagcaaatca ggcagtcctt acccactccc ctccctg 37

<210> 95
<211> 76
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh3

<400> 95
aacttcaaaa aaaattacaa aaagtgcttt ctgaactgaa caaaaaagag taaagttagt 60

cgcgtaaagt acatct 76

<210> 96
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh4

<400> 96
ttcccaacgt gttagaatta taggcatgac ccactgtgcc 40

<210> 97
<211> 87

<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh5

<400> 97
gtacgagcgg accccacagt tttaagccta aacttggcct tatgtagaat ttcttgatat 60

cattatcatc tttgtcgtag tcccatc 87

<210> 98
<211> 54
<212> DNA
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<220>
<223> RAP ID# yh6

<400> 98
gcaaaatgag tacttagaca tgctctgtat ttgtgctgta cagtacggta acac 54

<210> 99
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh7

<400> 99
gaggcacaca ctcacacacc cc 22

<210> 100
<211> 58
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh8

<400> 100
gggaattcgg agcgggatcg gttgcattag ctaagcctga gaaggtgatg ttgttgcc 58

<210> 101
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh9

<400> 101
atatcagcca tgtacatccc tgtccccc 28

<210> 102
<211> 60
<212> DNA
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<220>
<223> RAP ID# yh10

<400> 102
gcccacaaga ttccacgata gatatcaagg atttaaagct gattcagtgt atagtacatc 60

<210> 103
<211> 48
<212> DNA
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<220>
<223> RAP ID# yh11

<400> 103
ccataccagc atgatggata ccaaaaccaa attgaagaat ctccttcc 48

<210> 104
<211> 31
<212> DNA
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<220>
<223> RAP ID# yh12

<400> 104
attgcttttc cacacggatt ccaaccactg c 31

<210> 105
<211> 36
<212> DNA
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<220>
<223> RAP ID# yh13

<400> 105
attgcttttc cacacggatt ccaaccgata tcatac 36

<210> 106
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# 14

<400> 106
aagcactacc cacctgacaa tgtcttcatc cc 32

<210> 107
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh15

<400> 107
agcatacaaa atataccttt ctcaaacaag aaacatccc 39

<210> 108
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh16

<400> 108
gagccttaaa cactgacttc ccattccctc tcccc 35

<210> 109
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh17

<400> 109
gcagcccaca catcatacac acacacccc 29

<210> 110
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh18

<400> 110
gcagcttaaa ctgcctgacc ggtaagaaac tgaccaacat gcgtgcttcc ggtactgacg 60

aagccttcat cc 72

<210> 111
<211> 20
<212> DNA
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<220>
<223> RAP ID# yh19

<400> 111
gcagcccaca aaccacaccc 20

<210> 112
<211> 40
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<220>
<223> RAP ID# yh20

<400> 112
gcagcatgaa agtcacagtt ctaaacattc attctgtgcc 40

<210> 113
<211> 39
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<220>
<223> RAP ID# yh21

<400> 113
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<210> 114
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh22

<400> 114
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<210> 115
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh23

<400> 115
gcagcaacac acacacacac acaccc 26

<210> 116
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh24

<400> 116
gcagctttac ttaacagttg agctaattta cactcccatg gatagtgtat aagtgtttca 60

ttttcgccc 69

<210> 117
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh25

<400> 117
gcagcatgaa ccaaacacct tccactagtc ccatcc 36

<210> 118
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh26

<400> 118
gcagcaacac acagcacaca catacaccca ccgtactaag catcc 45

<210> 119
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh27

<400> 119
gagccaacta catcgaccaa tttaccagag gattcaccat tatgatcacc atcttcc 57

<210> 120
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh28

<400> 120
gcagcagcac tcatcggttc atcatctatg taaaggtgct tctccaccat gtgc 54

<210> 121
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh29

<400> 121
gcagcaacca cacatctata cggccttgaa aaccccatcc 40

<210> 122
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh30

<400> 122
aagcactaaa ggcccattct tgctctatgt atctgtgact taagatctgc cac 53

<210> 123
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh31

<400> 123
acggccacca gactcattcc tgcc 24

<210> 124
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh32

<400> 124
attgcttttc cacacggatt ccaaccgcta tccaaacact catccc 46

<210> 125
<211> 41
<212> DNA
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<220>
<223> RAP ID# yh33

<400> 125
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<210> 126
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh34

<400> 126
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<210> 127
<211> 65
<212> DNA
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<220>
<223> RAP ID# yh35

<400> 127
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ttccc 65

<210> 128
<211> 26
<212> DNA
<213> Artificial Sequence

<220>

<223> RAP ID# yh36

<400> 128
gagtcccaca cacacaccac accacc 26

<210> 129
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh37

<400> 129
cactttgtac tttattggag ttttcctcc 29

<210> 130
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh38

<400> 130
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<210> 131
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh39

<400> 131
gcagcaactt caaaaaaaat tacaaaaagt gctttctgaa ctgaacaaaa aagagtaaag 60

ttagtcgcgt aaagtacatc t 81

<210> 132
<211> 76
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh40

<400> 132
cagatcaggt cagctcagga taattcaaat tcagataatg aggcacagac taatcataac 60

acgaaaattg tcatcc 76

<210> 133
<211> 68
<212> DNA
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<220>
<223> RAP ID# yh41

<400> 133
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catcatcc 68

<210> 134
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh42

<400> 134
gtagtaatcg tcttcattct catggtgttc atcgttctct atgcc 45

<210> 135
<211> 82
<212> DNA
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<220>
<223> RAP ID# yh43

<400> 135
gcagcactta tggtccatat tagtgtctac taccctggtt atggaaggtt atgataccgc 60

actactgaac gcactgtatg cc 82

<210> 136
<211> 78
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh44

<400> 136
gagcatattg gacaggttgt acttgattag aaaacacaat catgcggtaa tattaagcca 60

tactcaacag cgccatcc 78

<210> 137
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> RAP ID# yh45

<400> 137
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<210> 138
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> eukaryotic transcription enhancing RAP consesus sequence

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<222> 6
<223> /note="wherein "N" may be A or T or C or G"

<220>
<221> misc_feature
<222> 15
<223> /note="wherein "N" may be A or T or C or G"

<400> 138
mmrcanmwba ywccnam 17

<210> 139
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> enhancing RAP consensus

<220>
<221> misc_feature
<222> 3
<223> /note="wherein N may be 0 to 3 nucleotides idependently selected
from the group consisting of A, T, C, and G"

<220>
<221> misc_feature
<222> 6
<223> /note="wherein "N" may be A or T or C or G"

<220>
<221> misc_feature
<222> 9
<223> /note="wherein "N" may be A or T or C or G"

<400> 139
canmmnswnm mh 12