SEQUENCE LISTING

<110> TROPIC BIOSCIENCES UK LIMITED
MAORI, Eyal
GALANTY, Yaron
PIGNOCCHI, Cristina
CHAPARRO GARCIA, Angela
MEIR, Ofir

<120> PRODUCTION OF dsRNA IN PLANT CELLS FOR PEST PROTECTION VIA GENE SILENCING

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<150> UK 1903521.1
<151> 2019-03-14

<160> 139

<170> PatentIn version 3.5

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ccagcagcgt ctcatcttcg ctggaaagca gcttgaggat ggacgtactt tggccgacta 180

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gaggcaaatt acatagtttc atcgttagat ctcttcttat ttctcgatta ggatgcagat 180

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gagggtggcg gctcggagtc gggtggcgag gagacggacg aacgcggcgt cgccgaggcg 1080

gacaacgcgg cggttgagct gcgccagcac ctgaacattg ggacggagaa gcagcacacc 1140

ggctccacgc taacacaacc ggcgcccgca gcgccgaacg ttggcagcgt tataatccgc 1200

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gagaagtaca tcatttcgcc gctgaccaac gagcgcattc cggcggacaa actgcacgag 1320

catgtgcgct acaacactgt ggacccgcag ttcaaagagc aacgagaccg cgaacatatg 1380

gatcgtcagg acgaggactt aggtatggcg cccggggcgg agatcagccg taacattgcc 1440

aagttggccg aacggcggac ggacattttt ggcattgggg agaagggtgt cgagcagaca 1500

atcattggca aaaaattggg ggaggaggag cgccaaatgc cgcgttcgga cccgaagacc 1560

atttgggacg gccaacagtc gaccatcgac gcgaccactc gcgcagccca gcagagcgtg 1620

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ggaagcgttc aaaaaatcgt ctctctgccg ccccatcctc aacatcagca aatgcgcccg 1860

ccgatgccgc cgcacttcat gccctcgggc cagcgtccgc atttgccacc accgcatatg 1920

ggcatgccgc cacacggcgt tatgggagga atacaaatgc ctccgcatat gcaacctggc 1980

atgccgggaa tgcccccgcc ggggatgatg cgtccgcccc atggcgcctt tatgcctccg 2040

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aaattggttt atgagggtat tttcatgaaa gacaaccaaa cgttggccta ttacaacttt 2340

atgccaaacg cggctgtcca acttcagctg aaggaacgtg gaggccgaaa gaaatga 2397

<210> 56

<211> 789
<212> DNA
<213> Heterodera glycines

<400> 56
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gtcggcaaaa cgttggtcaa ccgtactcag ggaacgcgca tttcgagcga ctttctaaaa 180

ggccgcgttt acgaagtgtc actgggtgac cttaacagca ctgacgccga ctttcgaaag 240

ttccgcctga tctgtgaaga ggtacagggc aagatttgcc tgaccaactt tcacggaatg 300

tcgttcactc gggacaaact gtgctctatt gtcaagaagt ggcacacgct cattgaggcg 360

aatgtggcag tgaagactac cgacggtttc atgctccgac tcttttgtat cggctttacc 420

aagcgaaatg ccaatcaaat taagaagacg agctatgcaa aagcctctca ggtgcggatg 480

attcgtgcca aaatggtgga gatcatgcag aaagaggtct cttccggcga tctgaaggaa 540

gtagtcaaca agctgatccc ggattcgatc ggcaaagaca tagagaaggc gtgctccttc 600

tactaccctc tgcaggacgt ttacattcgt aaggtgaagg tgctgaagaa gccgaagttc 660

gagctgggca aactattgga gatgcatggg gagggtgccg gaacggtcgc tacgattacg 720

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agcgtttga 789

<210> 57
<211> 2496
<212> DNA
<213> Heterodera glycines

<400> 57
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cctgcgctaa gtatggaaag tgagggaagc tcattcaaca acaatgtgaa cgcggaaatg 180

gacgaggaaa tgatggggga agatacaatg caccatgaag acgatcagcc ggtattgggc 240

agcgacgagg atgaacagga ggatccaaaa gactacaaga aaggcggtta ccaccctgtg 300

caaattggcg atgtcttcaa acatggacga taccatgtca tccgaaaatt gggctggggc 360

catttctcca ccgtttggct tagttgggac atcgacgtga aacgatttgt cgctatgaaa 420

atagtcaaat cggctgagca ttacacagag gcagcgttgg acgaaataaa attgctcgaa 480

tgtgtgaggg attctgatcc agccgacgct tcacttcaga gagttgtcca actgctcgat 540

catttcacag tcagcggcgt caacggtgcc catgtttgta tggtttttga ggttctcggg 600

tgcaatttgt tgaagcttat cattcgtagc agctacgagg gcttgccgat aaacctggtc 660

aaaaggataa cgaaacaggt tctcgaagga cttcactatt tgcatgagaa atgtcatatc 720

attcatacgg acataaaacc cgagaatgtt ttgatcacca tgagtcatga agagatcaaa 780

aagatggcgg aagatgcgat tttggcggga aaggcgggga atgccatgtc cggttctgct 840

gtttgcagct cgaagagggc cttcaagaag atggaggaaa cgcttacaaa gaacaaaaag 900

aagaagctga agaagaaacg gaagagacat cgcgacattc ttgaacagca gctcaaagaa 960

gttgagggaa tgagtgtgga aattaccagc ccaatcagtg aacagaatcc atttcgcatc 1020

aaccaccaac ggcacgatgg cgtttattcc tcggacgaca acgaggagga cggagagagt 1080

tgtagggaaa acgacgctca actgacaaag aatctctcac ttttggagaa aatcaaaatt 1140

ccgcgcattt ctttgaccca attttcaact aacaattcgc accaaaacaa cactaataac 1200

agcaataata ataacaacga acaacaacaa cagcagcagc agcaacaaca actccaattg 1260

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aaggaaccgt cggtgacggg aaatgccgaa ccgggccaat cgtcggacgc actgccgaaa 1440

cgaattggca aaaagaaaaa gacgggcaaa aacaaacaaa tgttggtcaa aaaggataag 1500

agagacgatt caccctcgcc tcctatcaaa agggaggaag aggaggccat gggacccgaa 1560

gaggacgaca ccaaagagtc gccgacaaag gggaaaacgg ccaaactgtc gaatgagtcg 1620

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aaaaagaaga aagcgaagcg aaagaataag aagaagctca agcaacaagc gtatgcacaa 1800

gaagaagatg aggagttgcg agaaatcgac aaaagtgatg gtgttcacca tcaaagcatg 1860

gtcgactcgg ggcagaacaa ggagctaaaa acagaggaag attatcaaca gctgagtcca 1920

atggagcagg agatgtcgtt cgaacacgaa aaccacgaaa agcaaatgct cgacaaaata 1980

attgccaaga aatttgatgt gaaaattgcg gacctgggca atgcttgttg gacctaccat 2040

cacttcaccg aggacatcca gacgcgtcag tacagagctt tggaagtcat catcggcgcg 2100

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tcactggtcg aagttcttac gcagaagtac caatggcctt tcgagcaagc cagatcgttc 2400

gcggcatttt tgtttcctat gcttaactat gaaccggctg aacgcgtcac tgcagcacag 2460

tgtctaaagc ataattggct caaaaacata gaatga 2496

<210> 58
<211> 2946
<212> DNA
<213> Heterodera glycines

<400> 58
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tttccgtctg aagggcaatt aaaggacaaa tttgagcacg gggacacaaa atccaagacg 120

gatgcactga aaaagctgat tttgatgatc caggcgggcg agaaggtcac cagccagcta 180

atgatgtacg tgatccgttt ttgtctacca acatccgatc attatctgaa gaagttgctg 240

ctgatattct gggaggtcgt cccgaagaca aatcaagagg gcaaactgtt gcacgaaatg 300

attttagtct gcgacgcgta ccgcaaagat ttgcagcatc cgaacgaata catacgcggc 360

tcgaccttgc gattcctttg taaactaaaa gagcccgagt tgctcgagcc gttgatgccg 420

tcgattcgga agtgcttgga gcatcgccat tcctacgtac gccgcaattc cattttggca 480

atctacacaa tttacaaaaa tttcgagttt ttgattcccg atgcgcccga attgatccaa 540

caactgctag agaccgagca ggacgcctcc tgcaagcgca acgcgttcat tatgcttcta 600

cacgttgacc ggcagcgggc cttggattat ttgtccggtt gtattgagca ggttgcgcag 660

ttcggcgaca tccttcagct tatcattgtg gagctgatct acaaagtctg tcacaacaac 720

ccggcggaac gcaatcgctt cattcgttgt gtgtacaatt tgctgcagtc gcagtcgggc 780

gccgttcgct acgaggcggc tggcacactt gtgacgctta gcaccgcgcc gacggcggtg 840

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ctgattgtac tcgatcgtct ggtatgccta cgcgaggttt tgcccaacga caaagtgctg 960

caggatttgg taatggacat tctgcgtgtt ctgtccacaa cggactacga agtgcgccga 1020

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aaccaattgc tggaagtttt tccgaccatc cgaaacgcgt ccatttttcg atccgctctg 1380

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tcgaacgccg ttagtgcggc tgacgataaa ccaattttgc gcagttttct actcgatggg 1680

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atcgcatcca ttattcacct cggcaagtcc ggcatgtgca aacaggcgat aactgaggac 1860

gatctggacc gtctctccac cacagtgcgt ttgatcgtgg accaatggcc tgatgcagtg 1920

catgtattcc tgaatgagtg tcgttcgtca cttgagcgca tgttaatggc caaaggtgat 1980

gtggaccggc acgagcgcga gaccaaggcg ccgaagaaaa agattcctga caagactatc 2040

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gcgaagtccc aggggatggc actttcattg ggggacaaga taaaccacgc gcaaaaggag 2880

cgcaaaccgg tggagagggg tggggcaaga gcggctatga atgccgctgc cgccgccgca 2940

aaataa 2946

<210> 59
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> siRNA target site

<400> 59
tggagcagca gatcaatgaa attcaacgac 30

<210> 60
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> siRNA target site

<400> 60
attcgtaagg tgaaggtgct gaagaagccg 30

<210> 61
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> siRNA target site

<400> 61
aaaaacaaac aaatgttggt caaaaaggat 30

<210> 62
<211> 30

<212> DNA
<213> Artificial sequence

<220>
<223> siRNA target site

<400> 62
ccgctctgtg gattcttggc gaatattgcg 30

<210> 63
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 63
accaatttga cccaaaaagg c 21

<210> 64
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 64
gcagcagatc aatgaaattc aacg 24

<210> 65
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 65
agccgctctg tggattcttg 20

<210> 66
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 66
aaactcctcg cctcttggtg 20

<210> 67
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 67
tcttcagcac cttcacctta cg 22

<210> 68
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 68
tccttttga ccaacatttg tttgt 25

<210> 69
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 69
accaatttga cccaaaaagg c 21

<210> 70
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 70
tggacttaga atatgctatg ttggac 26

<210> 71
<211> 20

<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 71
aaactcctcg cctcttggtg 20

<210> 72
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 72
tctatctcta cctctaattc gttcgag 27

<210> 73
<211> 839
<212> DNA
<213> Artificial sequence

<220>
<223> AtTAS1b_AT1G50055

<400> 73
aaatctaaac ctaagcggct aagcctgacg tcatttaaca aaaagagtaa acatgagcgc 60

cgtcaagctc tgcaactacg atctgtaact ccatcttaac acaaaagttg agataggttc 120

ttagatcagg ttccgctgtt aaatcgagtc atggtcttgt ctcatagaaa ggtactttct 180

tttacttctc ttgagtagct tctatagcta gattgagatt gaggttttga gatattaggt 240

tcgatgtccc ggtctatttg tcaccagcca tgtgtcagtt tcgaccagtc ccgtgctctc 300

tgtatttggt tttatcggaa tacggagatc tattttcagg aggagacaac tttgttttct 360

tgtgattttt ctcaacaagc gaatgagtca ttcatcggta tctaaccatt caccatatta 420

tcagagtagt tatgattgat aggatggtag aagaatattc taagtccaac atagcatatt 480

ctaagtccaa catagcgtaa aaaattggga gatatccgga atgatattat acgtaaaaaa 540

aaatgggaga tgtccggaat gatatttgta atatttttat gttaacgaaa catattttag 600

gatatgcaaa aaaaagtaga tgttggtatt cttgttttgc aagatttgta atgggagttg 660

tgtagtcttt ttatgatgtg tcatgaagtc taccgccaat tacatacatc attcactttg 720

taattaaatt gtcttcaagt ttgtaatttt atttttgttt tatgtaccaa aatctaaatt 780

cagttgttta caacttgata acaaaaaaaa agttatacat tacttatgtt ttcacactc 839

<210> 74
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> sgRNA_AtTAS1b (including PAM)

<400> 74
ggacttagaa tatgctatgt tgg 23

<210> 75
<211> 839
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Splicing factor-transcript

<400> 75
aaatctaaac ctaagcggct aagcctgacg tcatttaaca aaaagagtaa acatgagcgc 60

cgtcaagctc tgcaactacg atctgtaact ccatcttaac acaaaagttg agataggttc 120

ttagatcagg ttccgctgtt aaatcgagtc atggtcttgt ctcatagaaa ggtactttct 180

tttacttctc ttgagtagct tctatagcta gattgagatt gaggttttga gatattaggt 240

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tgtatttggt tttatcggaa tacggagatc tattttcagg aggagacaac tttgttttct 360

tgtgattttt ctcaacaagc gaatgagtca ttcatcggta tctaaccatt caccatatta 420

tcagagtagt tatgattgat aggatggtag aaggtcgttg aatttcattg atctgctgct 480

ccaagtccaa catagcgtaa aaaattggga gatatccgga atgatattat acgtaaaaaa 540

aaatgggaga tgtccggaat gatatttgta atatttttat gttaacgaaa catattttag 600

gatatgcaaa aaaaagtaga tgttggtatt cttgttttgc aagatttgta atgggagttg 660

tgtagtcttt ttatgatgtg tcatgaagtc taccgccaat tacatacatc attcactttg 720

taattaaatt gtcttcaagt ttgtaatttt atttttgttt tatgtaccaa aatctaaatt 780

cagttgttta caacttgata acaaaaaaaa agttatacat tacttatgtt ttcacactc 839

<210> 76
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Homologous region in the GEiGS design of GEiGS-Splicing factor-transcript

<400> 76
gtcgttgaat ttcattgatc tgctgctcca 30

<210> 77
<211> 1000
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Splicing factor-DONOR

<400> 77
gttgttgttg ctaaatgaat gatattaatc cactacagtt gtaaactaca aatatacaaa 60

gcagtaaaaa tccatgtatg atgattaata agaagctttc gaatggatat agaaaaaact 120

tgaatcattg agtgtgaaaa cataagtaat gtataacttt ttttttgtta tcaagttgta 180

aacaactgaa tttagatttt ggtacataaa acaaaaataa aattacaaac ttgaagacaa 240

tttaattaca aagtgaatga tgtatgtaat tggcggtaga cttcatgaca catcataaaa 300

agactacaca actcccatta caaatcttgc aaaacaagaa taccaacatc tacttttttt 360

tgcatatcct aaaatatgtt tcgttaacat aaaaatatta caaatatcat tccggacatc 420

tcccattttt ttttacgtat aatatcattc cggatatctc ccaatttttt acgctatgtt 480

ggacttggag cagcagatca atgaaattca acgaccttct accatcctat caatcataac 540

tactctgata atatggtgaa tggttagata ccgatgaatg actcattcgc ttgttgagaa 600

aaatcacaag aaaacaaagt tgtctcctcc tgaaaataga tctccgtatt ccgataaaac 660

caaatacaga gagcacggga ctggtcgaaa ctgacacatg gctggtgaca aatagaccgg 720

gacatcgaac ctaatatctc aaaacctcaa tctcaatcta gctatagaag ctactcaaga 780

gaagtaaaag aaagtacctt tctatgagac aagaccatga ctcgatttaa cagcggaacc 840

tgatctaaga acctatctca acttttgtgt taagatggag ttacagatcg tagttgcaga 900

gcttgacggc gctcatgttt actctttttg ttaaatgacg tcaggcttag ccgcttaggt 960

ttagatttat gaggtcggta atgagtgact tgggtttata 1000

<210> 78
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Homologous region in the GEiGS design of GEiGS-Splicing factor-DONOR

<400> 78
tggagcagca gatcaatgaa attcaacgac 30

<210> 79
<211> 839
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Y25-transcript

<400> 79
aaatctaaac ctaagcggct aagcctgacg tcatttaaca aaaagagtaa acatgagcgc 60

cgtcaagctc tgcaactacg atctgtaact ccatcttaac acaaaagttg agataggttc 120

ttagatcagg ttccgctgtt aaatcgagtc atggtcttgt ctcatagaaa ggtactttct 180

tttacttctc ttgagtagct tctatagcta gattgagatt gaggttttga gatattaggt 240

tcgatgtccc ggtctatttg tcaccagcca tgtgtcagtt tcgaccagtc ccgtgctctc 300

tgtatttggt tttatcggaa tacggagatc tattttcagg aggagacaac tttgttttct 360

tgtgattttt ctcaacaagc gaatgagtca ttcatcggta tctaaccatt caccatatta 420

tcagagtagt tatgattgat aggatggtag cgcaatattc gccaagaatc cacagagcgg 480

ctaagtccaa catagcgtaa aaaattggga gatatccgga atgatattat acgtaaaaaa 540

aaatgggaga tgtccggaat gatatttgta atatttttat gttaacgaaa catattttag 600

gatatgcaaa aaaaagtaga tgttggtatt cttgttttgc aagatttgta atgggagttg 660

tgtagtcttt ttatgatgtg tcatgaagtc taccgccaat tacatacatc attcactttg 720

taattaaatt gtcttcaagt ttgtaatttt atttttgttt tatgtaccaa aatctaaatt 780

cagttgttta caacttgata acaaaaaaaa agttatacat tacttatgtt ttcacactc 839

<210> 80
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Homologous region in the GEiGS design of GEiGS-Y25-transcript

<400> 80
cgcaatattc gccaagaatc cacagagcgg 30

<210> 81
<211> 1000
<212> DNA
<213> Artificial sequence

<220>
<223> Y25-DONOR

<400> 81
gttgttgttg ctaaatgaat gatattaatc cactacagtt gtaaactaca aatatacaaa 60

gcagtaaaaa tccatgtatg atgattaata agaagctttc gaatggatat agaaaaaact 120

tgaatcattg agtgtgaaaa cataagtaat gtataacttt ttttttgtta tcaagttgta 180

aacaactgaa tttagatttt ggtacataaa acaaaaataa aattacaaac ttgaagacaa 240

tttaattaca aagtgaatga tgtatgtaat tggcggtaga cttcatgaca catcataaaa 300

agactacaca actcccatta caaatcttgc aaaacaagaa taccaacatc tacttttttt 360

tgcatatcct aaaatatgtt tcgttaacat aaaaatatta caaatatcat tccggacatc 420

tcccatttt ttttacgtat aatatcattc cggatatctc ccaatttttt acgctatgtt 480

ggacttagcc gctctgtgga ttcttggcga atattgcgct accatcctat caatcataac 540

tactctgata atatggtgaa tggttagata ccgatgaatg actcattcgc ttgttgagaa 600

aaatcacaag aaaacaaagt tgtctcctcc tgaaaataga tctccgtatt ccgataaaac 660

caaatacaga gagcacggga ctggtcgaaa ctgacacatg gctggtgaca aatagaccgg 720

gacatcgaac ctaatatctc aaaacctcaa tctcaatcta gctatagaag ctactcaaga 780

gaagtaaaag aaagtacctt tctatgagac aagaccatga ctcgatttaa cagcggaacc 840

tgatctaaga acctatctca acttttgtgt taagatggag ttacagatcg tagttgcaga 900

gcttgacggc gctcatgttt actcttttg ttaaatgacg tcaggcttag ccgcttaggt 960

ttagatttat gaggtcggta atgagtgact tgggtttata 1000

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

<220>
<223> Homologous region in the GEiGS design of Y25-DONOR

<400> 82
ccgctctgtg gattcttggc gaatattgcg 30

<210> 83
<211> 947
<212> DNA
<213> Artificial sequence

<220>
<223> AtTAS3a_AT3G17185

<400> 83
atcccaccgt ttcttaagac tctctctctt tctgttttct atttctctct ctctcaaatg 60

aaagagagag aagagctccc atggatgaaa ttagcgagac cgaagtttct ccaaggtgat 120

atgtctatct gtatatgtga tacgaagagt tagggttttg tcatttcgaa gtcaattttt 180

gtttgtttgt caataatgat atctgaatga tgaagaacac gtaactaaga tatgttactg 240

aactatataa tacatatgtg tgtttttctg tatctatttc tatatatatg tagatgtagt 300

gtaagtctgt tatatagaca ttattcatgt gtacatgcat tataccaaca taaatttgta 360

tcaatactac ttttgattta cgatgatgga tgttcttaga tatcttcata cgtttgtttc 420

cacatgtatt tacaactaca tatatatttg gaatcacata tatacttgat tattatagtt 480

gtaaagagta acaagttctt ttttcaggca ttaaggaaaa cataacctcc gtgatgcata 540

gagattattg gatccgctgt gctgagacat tgagtttttc ttcggcattc cagtttcaat 600

gataaagcgg tgttatccta tctgagcttt tagtcggatt ttttcttttc aattattgtg 660

ttttatctag atgatgcatt tcattattct ctttttcttg accttgtaag gccttttctt 720

gaccttgtaa gaccccatct ctttctaaac gttttattat tttctcgttt tacagattct 780

attctatctc ttctcaatat agaatagata tctatctcta cctctaattc gttcgagtca 840

ttttctccta ccttgtctat ccctcctgag ctaatctcca catatatctt ttgtttgtta 900

ttgatgtatg gttgacataa attcaataaa gaagttgacg tttttct 947

<210> 84
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> sgRNA_AtTAS3a (including PAM)

<400> 84
aaatgactcg aacgaattag agg 23

<210> 85
<211> 947
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Ribosomal protein 3a-transcript

<400> 85
atcccaccgt ttcttaagac tctctctctt tctgttttct atttctctct ctctcaaatg 60

aaagagagag aagagctccc atggatgaaa ttagcgagac cgaagtttct ccaaggtgat 120

atgtctatct gtatatgtga tacgaagagt tagggttttg tcatttcgaa gtcaattttt 180

gtttgtttgt caataatgat atctgaatga tgaagaacac gtaactaaga tatgttactg 240

aactatataa tacatatgtg tgtttttctg tatctatttc tatatatatg tagatgtagt 300

gtaagtctgt tatatagaca ttattcatgt gtacatgcat tataccaaca taaatttgta 360

tcaatactac ttttgattta cgatgatgga tgttcttaga tatcttcata cgtttgtttc 420

cacatgtatt tacaactaca tatatatttg gaatcacata tatacttgat tattatagtt 480

gtaaagagta acaagttctt ttttcaggca ttaaggaaaa cataacctcc gtgatgcata 540

gagattattg gatccgctgt gctgagacat tgagtttttc ttcggcattc cagtttcaat 600

gataaagcgg tgttatccta tctgagcttt tagtcggatt ttttcttttc aattattgtg 660

ttttatctag atgatgcatt tcattattct ctttttcttg accttgtaag gccttttctt 720

gaccttgtaa gaccccatct ctttctaaac gttttattat tttctcgttt tacagattct 780

attctatctc ttctcaatat agaatagata tcggcttctt cagcaccttc accttacgaa 840

ttttctccta ccttgtctat ccctcctgag ctaatctcca catatatctt ttgtttgtta 900

ttgatgtatg gttgacataa attcaataaa gaagttgacg tttttct 947

<210> 86
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Homologous region in the GEiGS design of GEiGS-Ribosomal protein 3a-transcript

<400> 86
cggcttcttc agcaccttca ccttacgaat 30

<210> 87
<211> 1000
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS- Ribosomal protein 3a -DONOR

<400> 87
tgtacatgca ttataccaac ataaatttgt atcaatacta cttttgattt acgatgatgg 60

atgttcttag atatcttcat acgtttgttt ccacatgtat ttacaactac atatatattt 120

ggaatcacat atatacttga ttattatagt tgtaaagagt aacaagttct tttttcaggc 180

attaaggaaa acataacctc cgtgatgcat agagattatt ggatccgctg tgctgagaca 240

ttgagttttt cttcggcatt ccagtttcaa tgataaagcg gtgttatcct atctgagctt 300

ttagtcggat tttttctttt caattattgt gttttatcta gatgatgcat ttcattattc 360

tctttttctt gaccttgtaa ggccttttct tgaccttgta agaccccatc tctttctaaa 420

cgttttatta ttttctcgtt ttacagattc tattctatct cttctcaata tagaatagat 480

atcggcttct tcagcacctt caccttacga attttctcct accttgtcta tccctcctga 540

gctaatctcc acatatatct tttgtttgtt attgatgtat ggttgacata aattcaataa 600

agaagttgac gtttttctta tttgattttt gttgttgttg gttatattat tgcaacaaaa 660

ttaaaggggg taaggaaggt ctcgctatca aggggactgg caaaaggtaa tgaataagga 720

aacgggcaaa aagaattatg cctttactct ctcttttaag gctttggaca ggaatttagt 780

tttgttttat gtgttgtgtt gtttgtttgg gtctgactga ccccaaaggg caaagccaaa 840

ccagagaaga ctcttattaa atattccctc agaatcattt attgcctcta tctttatctc 900

tctctttctc acactcgtga ctgtttctca ccttatgtat gtactagtaa tagtttttac 960

cactttcaac ttttacaaat agcatttgtt tctgtttaaa 1000

<210> 88
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Homologous region in the GEiGS design of GEiGS- Ribosomal protein 3a -DONOR

<400> 88
cggcttcttc agcaccttca ccttacgaat 30

<210> 89
<211> 947
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Spliceosomal SR protein-transcript

<400> 89
atcccaccgt ttcttaagac tctctctctt tctgttttct atttctctct ctctcaaatg 60

aaagagagag aagagctccc atggatgaaa ttagcgagac cgaagtttct ccaaggtgat 120

atgtctatct gtatatgtga tacgaagagt tagggttttg tcatttcgaa gtcaattttt 180

gtttgtttgt caataatgat atctgaatga tgaagaacac gtaactaaga tatgttactg 240

aactatataa tacatatgtg tgtttttctg tatctatttc tatatatatg tagatgtagt 300

gtaagtctgt tatatagaca ttattcatgt gtacatgcat tataccaaca taaatttgta 360

tcaatactac ttttgattta cgatgatgga tgttcttaga tatcttcata cgtttgtttc 420

cacatgtatt tacaactaca tatatatttg gaatcacata tatacttgat tattatagtt 480

gtaaagagta acaagttctt ttttcaggca ttaaggaaaa cataacctcc gtgatgcata 540

gagattattg gatccgctgt gctgagacat tgagtttttc ttcggcattc cagtttcaat 600

gataaagcgg tgttatccta tctgagcttt tagtcggatt ttttcttttc aattattgtg 660

ttttatctag atgatgcatt tcattattct ctttttcttg accttgtaag gccttttctt 720

gaccttgtaa gaccccatct ctttctaaac gttttattat tttctcgttt tacagattct 780

attctatctc ttctcaatat agaatagata tccttttga ccaacatttg tttgttttta 840

ttttctccta ccttgtctat ccctcctgag ctaatctcca catatatctt ttgtttgtta 900

ttgatgtatg gttgacataa attcaataaa gaagttgacg tttttct 947

<210> 90
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Homologous region in the GEiGS design of GEiGS-Spliceosomal SR protein-transcript

<400> 90
atccttttg accaacattt gtttgttttt 30

<210> 91
<211> 1000
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Spliceosomal SR protein-DONOR

<400> 91
tgtacatgca ttataccaac ataaatttgt atcaatacta cttttgattt acgatgatgg 60

atgttcttag atatcttcat acgtttgttt ccacatgtat ttacaactac atatatattt 120

ggaatcacat atatacttga ttattatagt tgtaaagagt aacaagttct tttttcaggc 180

attaaggaaa acataacctc cgtgatgcat agagattatt ggatccgctg tgctgagaca 240

ttgagttttt cttcggcatt ccagtttcaa tgataaagcg gtgttatcct atctgagctt 300

ttagtcggat tttttctttt caattattgt gttttatcta gatgatgcat ttcattattc 360

tctttttctt gaccttgtaa ggccttttct tgaccttgta agaccccatc tctttctaaa 420

cgttttatta ttttctcgtt ttacagattc tattctatct cttctcaata tagaatagat 480

atccttttg accaacattt gtttgttttt attttctcct accttgtcta tccctcctga 540

gctaatctcc acatatatct tttgtttgtt attgatgtat ggttgacata aattcaataa 600

agaagttgac gtttttctta tttgattttt gttgttgttg gttatattat tgcaacaaaa 660

ttaaaggggg taaggaaggt ctcgctatca aggggactgg caaaaggtaa tgaataagga 720

aacgggcaaa aagaattatg cctttactct ctcttttaag gctttggaca ggaatttagt 780

tttgttttat gtgttgtgtt gtttgtttgg gtctgactga ccccaaaggg caaagccaaa 840

ccagagaaga ctcttattaa atattccctc agaatcattt attgcctcta tctttatctc 900

tctctttctc acactcgtga ctgtttctca ccttatgtat gtactagtaa tagtttttac 960

cactttcaac ttttacaaat agcatttgtt tctgtttaaa 1000

<210> 92
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Homologous region in the GEiGS design of GEiGS-Spliceosomal SR protein-DONOR

<400> 92
atccttttg accaacattt gtttgttttt 30

<210> 93
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 93
taacataaaa atattacaaa tatcattccg 30

<210> 94
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 94
tcagagtagt tatgattgat aggatgg 27

<210> 95
<211> 21
<212> DNA
<213> Artificial sequence

<220>

<223> Single strand DNA oligonucleotide

<400> 95
gctcaggagg gatagacaag g 21

<210> 96
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 96
ctcgttttac agattctatt ctatctc 27

<210> 97
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 97
tgaccttgta agaccccatc tc 22

<210> 98
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 98
aggagaaaat tcgtaaggtg aagg 24

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

<220>
<223> Single strand DNA oligonucleotide

<400> 99
tgaccttgta agaccccatc tc 22

<210> 100
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 100
ggtaggagaa aatgactcga acg 23

<210> 101
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 101
caaccataca tcaataacaa acaaaag 27

<210> 102
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 102
atatagaata gatatcggct tcttcag 27

<210> 103
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 103
caaccataca tcaataacaa acaaaag 27

<210> 104
<211> 25
<212> DNA
<213> Artificial sequence

<220>

<223> Single strand DNA oligonucleotide

<400> 104
tccttttga ccaacatttg tttgt 25

<210> 105
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 105
gagtcattca tcggtatcta acc 23

<210> 106
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 106
agccgctctg tggattcttg 20

<210> 107
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 107
gagtcattca tcggtatcta acc 23

<210> 108
<211> 26
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 108
tggacttaga atatgctatg ttggac 26

<210> 109
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 109
gcatatccta aaatatgttt cgttaac 27

<210> 110
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 110
tcgccaagaa tccacagagc 20

<210> 111
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 111
gcatatccta aaatatgttt cgttaac 27

<210> 112
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 112
taagtccaac atagcatatt ctaagtc 27

<210> 113
<211> 40
<212> DNA
<213> Artificial sequence

<220>

<223> Single strand DNA oligonucleotide

<400> 113
atgtttgaac gatcgggccc aagggacacg aagtgatccg 40

<210> 114
<211> 38
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 114
ctccaccatg ttcccggggg cacagagtgt tcaacccc 38

<210> 115
<211> 1038
<212> DNA
<213> Artificial sequence

<220>
<223> AtTAS1B (At1g50055)

<400> 115
ttgacccaaa aaggctttgt actctttaca taacaaaaaa ggtcaaatag ggaaaacgat 60

gggactttat aaacccaagt cactcattac cgacctcata aatctaaacc taagcggcta 120

agcctgacgt catttaacaa aaagagtaaa catgagcgcc gtcaagctct gcaactacga 180

tctgtaactc catcttaaca caaaagttga gataggttct tagatcaggt tccgctgtta 240

aatcgagtca tggtcttgtc tcatagaaag gtactttctt ttacttctct tgagtagctt 300

ctatagctag attgagattg aggttttgag atattaggtt cgatgtcccg gtctatttgt 360

caccagccat gtgtcagttt cgaccagtcc cgtgctctct gtatttggtt ttatcggaat 420

acggagatct attttcagga ggagacaact ttgttttctt gtgatttttc tcaacaagcg 480

aatgagtcat tcatcggtat ctaaccattc accatattat cagagtagtt atgattgata 540

ggatggtaga agaatattct aagtccaaca tagcatattc taagtccaac atagcgtaaa 600

aaattgggag atatccggaa tgatattata cgtaaaaaaa aatgggagat gtccggaatg 660

atatttgtaa tatttttatg ttaacgaaac atattttagg atatgcaaaa aaaagtagat 720

gttggtattc ttgttttgca agatttgtaa tgggagttgt gtagtctttt tatgatgtgt 780

catgaagtct accgccaatt acatacatca ttcactttgt aattaaattg tcttcaagtt 840

tgtaatttta tttttgtttt atgtaccaaa atctaaattc agttgtttac aacttgataa 900

caaaaaaaaa gttatacatt acttatgttt tcacactcaa tgattcaagt tttttctata 960

tccattcgaa agcttcttat taatcatcat acatggattt ttactgcttt gtatatttgt 1020

agtttacaac tgtagtgg 1038

<210> 116
<211> 1039
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-TuMV

<400> 116
tttgacccaa aaaggctttg tactctttac ataacaaaaa aggtcaaata gggaaaacga 60

tgggacttta taaacccaag tcactcatta ccgacctcat aaatctaaac ctaagcggct 120

aagcctgacg tcatttaaca aaaagagtaa acatgagcgc cgtcaagctc tgcaactacg 180

atctgtaact ccatcttaac acaaaagttg agataggttc ttagatcagg ttccgctgtt 240

aaatcgagtc atggtcttgt ctcatagaaa ggtactttct tttacttctc ttgagtagct 300

tctatagcta gattgagatt gaggttttga gatattaggt tcgatgtccc ggtctatttg 360

tcaccagcca tgtgtcagtt tcgaccagtc ccgtgctctc tgtatttggt tttatcggaa 420

tacggagatc tattttcagg aggagacaac tttgttttct tgtgattttt ctcaacaagc 480

gaatgagtca ttcatcggta tctaaccatt caccatatta tcagagtagt tatgattgat 540

aggatggtag aagaatattc taagtccaac atagcataac ttgctcacac actcgactga 600

aaaattggga gatatccgga atgatattat acgtaaaaaa aaatgggaga tgtccggaat 660

gatatttgta atatttttat gttaacgaaa catattttag gatatgcaaa aaaaagtaga 720

tgttggtatt cttgttttgc aagatttgta atgggagttg tgtagtcttt ttatgatgtg 780

tcatgaagtc taccgccaat tacatacatc attcactttg taattaaatt gtcttcaagt 840

ttgtaatttt atttttgttt tatgtaccaa aatctaaatt cagttgttta caacttgata 900

acaaaaaaaa agttatacat tacttatgtt ttcacactca atgattcaag ttttttctat 960

atccattcga aagcttctta ttaatcatca tacatggatt tttactgctt tgtatatttg 1020

tagtttacaa ctgtagtgg 1039

<210> 117
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-TuMV- mature siRNA

<400> 117
acttgctcac acactcgact g 21

<210> 118
<211> 1039
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-dummy

<400> 118
tttgacccaa aaaggctttg tactctttac ataacaaaaa aggtcaaata gggaaaacga 60

tgggacttta taaacccaag tcactcatta ccgacctcat aaatctaaac ctaagcggct 120

aagcctgacg tcatttaaca aaaagagtaa acatgagcgc cgtcaagctc tgcaactacg 180

atctgtaact ccatcttaac acaaaagttg agataggttc ttagatcagg ttccgctgtt 240

aaatcgagtc atggtcttgt ctcatagaaa ggtactttct tttacttctc ttgagtagct 300

tctatagcta gattgagatt gaggttttga gatattaggt tcgatgtccc ggtctatttg 360

tcaccagcca tgtgtcagtt tcgaccagtc ccgtgctctc tgtatttggt tttatcggaa 420

tacggagatc tattttcagg aggagacaac tttgttttct tgtgattttt ctcaacaagc 480

gaatgagtca ttcatcggta tctaaccatt caccatatta tcagagtagt tatgattgat 540

aggatggtag aagaatattg gaggggtaat gccattgctt ctaagtccaa catagcgtaa 600

aaaattggga gatatccgga atgatattat acgtaaaaaa aaatgggaga tgtccggaat 660

gatatttgta atatttttat gttaacgaaa catattttag gatatgcaaa aaaaagtaga 720

tgttggtatt cttgttttgc aagatttgta atgggagttg tgtagtcttt ttatgatgtg 780

tcatgaagtc taccgccaat tacatacatc attcactttg taattaaatt gtcttcaagt 840

ttgtaatttt atttttgttt tatgtaccaa aatctaaatt cagttgttta caacttgata 900

acaaaaaaaa agttatacat tacttatgtt ttcacactca atgattcaag ttttttctat 960

atccattcga aagcttctta ttaatcatca tacatggatt tttactgctt tgtatatttg 1020

tagtttacaa ctgtagtgg 1039

<210> 119
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-dummy- mature siRNA

<400> 119
ttggaggggt aatgccattg c 21

<210> 120
<211> 102
<212> DNA
<213> Artificial sequence

<220>
<223> miR173_ AT3G23125

<400> 120
taagtacttt cgcttgcaga gagaaatcac agtggtcaaa aaagttgtag ttttcttaaa 60

gtctctttcc tctgtgattc tctgtgtaag cgaaagagct tg 102

<210> 121
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> miR173-mature miRNA

<400> 121
ttcgcttgca gagagaaatc ac 22

<210> 122
<211> 947
<212> DNA
<213> Artificial sequence

<220>
<223> AtTAS3a_AT3G17185

<400> 122
atcccaccgt ttcttaagac tctctctctt tctgttttct atttctctct ctctcaaatg 60

aaagagagag aagagctccc atggatgaaa ttagcgagac cgaagtttct ccaaggtgat 120

atgtctatct gtatatgtga tacgaagagt tagggttttg tcatttcgaa gtcaattttt 180

gtttgtttgt caataatgat atctgaatga tgaagaacac gtaactaaga tatgttactg 240

aactatataa tacatatgtg tgtttttctg tatctatttc tatatatatg tagatgtagt 300

gtaagtctgt tatatagaca ttattcatgt gtacatgcat tataccaaca taaatttgta 360

tcaatactac ttttgattta cgatgatgga tgttcttaga tatcttcata cgtttgtttc 420

cacatgtatt tacaactaca tatatatttg gaatcacata tatacttgat tattatagtt 480

gtaaagagta acaagttctt ttttcaggca ttaaggaaaa cataacctcc gtgatgcata 540

gagattattg gatccgctgt gctgagacat tgagtttttc ttcggcattc cagtttcaat 600

gataaagcgg tgttatccta tctgagcttt tagtcggatt ttttcttttc aattattgtg 660

ttttatctag atgatgcatt tcattattct ctttttcttg accttgtaag gccttttctt 720

gaccttgtaa gaccccatct ctttctaaac gttttattat tttctcgttt tacagattct 780

attctatctc ttctcaatat agaatagata tctatctcta cctctaattc gttcgagtca 840

ttttctccta ccttgtctat ccctcctgag ctaatctcca catatatctt ttgtttgtta 900

ttgatgtatg gttgacataa attcaataaa gaagttgacg tttttct 947

<210> 123
<211> 947
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Ribosomal protein 3a-transcript

<400> 123
atcccaccgt ttcttaagac tctctctctt tctgttttct atttctctct ctctcaaatg 60

aaagagagag aagagctccc atggatgaaa ttagcgagac cgaagtttct ccaaggtgat 120

atgtctatct gtatatgtga tacgaagagt tagggttttg tcatttcgaa gtcaattttt 180

gtttgtttgt caataatgat atctgaatga tgaagaacac gtaactaaga tatgttactg 240

aactatataa tacatatgtg tgtttttctg tatctatttc tatatatatg tagatgtagt 300

gtaagtctgt tatatagaca ttattcatgt gtacatgcat tataccaaca taaatttgta 360

tcaatactac ttttgattta cgatgatgga tgttcttaga tatcttcata cgtttgtttc 420

cacatgtatt tacaactaca tatatatttg gaatcacata tatacttgat tattatagtt 480

gtaaagagta acaagttctt ttttcaggca ttaaggaaaa cataacctcc gtgatgcata 540

gagattattg gatccgctgt gctgagacat tgagtttttc ttcggcattc cagtttcaat 600

gataaagcgg tgttatccta tctgagcttt tagtcggatt ttttcttttc aattattgtg 660

ttttatctag atgatgcatt tcattattct ctttttcttg accttgtaag gccttttctt 720

gaccttgtaa gaccccatct ctttctaaac gttttattat tttctcgttt tacagattct 780

attctatctc ttctcaatat agaatagata tcggcttctt cagcaccttc accttacgaa 840

ttttctccta ccttgtctat ccctcctgag ctaatctcca catatatctt ttgtttgtta 900

ttgatgtatg gttgacataa attcaataaa gaagttgacg tttttct 947

<210> 124
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Ribosomal protein 3a-transcript - the expected processed siRNA

<400> 124
cggcttcttc agcaccttca ccttacgaat 30

<210> 125
<211> 947
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Spliceosomal SR protein-transcript

<400> 125
atcccaccgt ttcttaagac tctctctctt tctgttttct atttctctct ctctcaaatg 60

aaagagagag aagagctccc atggatgaaa ttagcgagac cgaagtttct ccaaggtgat 120

atgtctatct gtatatgtga tacgaagagt tagggttttg tcatttcgaa gtcaattttt 180

gtttgtttgt caataatgat atctgaatga tgaagaacac gtaactaaga tatgttactg 240

aactatataa tacatatgtg tgtttttctg tatctatttc tatatatatg tagatgtagt 300

gtaagtctgt tatatagaca ttattcatgt gtacatgcat tataccaaca taaatttgta 360

tcaatactac ttttgattta cgatgatgga tgttcttaga tatcttcata cgtttgtttc 420

cacatgtatt tacaactaca tatatatttg gaatcacata tatacttgat tattatagtt 480

gtaaagagta acaagttctt ttttcaggca ttaaggaaaa cataacctcc gtgatgcata 540

gagattattg gatccgctgt gctgagacat tgagtttttc ttcggcattc cagtttcaat 600

gataaagcgg tgttatccta tctgagcttt tagtcggatt ttttcttttc aattattgtg 660

ttttatctag atgatgcatt tcattattct ctttttcttg accttgtaag gccttttctt 720

gaccttgtaa gaccccatct ctttctaaac gttttattat tttctcgttt tacagattct 780

attctatctc ttctcaatat agaatagata tccttttga ccaacatttg tttgttttta 840

ttttctccta ccttgtctat ccctcctgag ctaatctcca catatatctt ttgtttgtta 900

ttgatgtatg gttgacataa attcaataaa gaagttgacg tttttct 947

<210> 126
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS-Spliceosomal SR protein-transcript - the expected processed siRNA

<400> 126
atccttttg accaacattt gtttgttttt 30

<210> 127
<211> 107
<212> DNA
<213> Artificial sequence

<220>
<223> miR390_ AT2G38325

<400> 127
gtagagaaga atctgtaaag ctcaggaggg atagcgccat gatgatcaca ttcgttatct 60

atttttggc gctatccatc ctgagtttca ttggctcttc ttactac 107

<210> 128
<211> 25
<212> DNA
<213> Artificial sequence

<220>

<223> Single strand DNA oligonucleotide

<400> 128
gctcaactga caaagaatct ctcac 25

<210> 129
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 129
ttgaaaattg ggtcaaagaa atgcg 25

<210> 130
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 130
gaacggtcgc tacgattacg a 21

<210> 131
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 131
caaacgctct gttgaacagg c 21

<210> 132
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 132
ttccagcaga tgtggatcag 20

<210> 133
<211> 20
<212> DNA
<213> Artificial sequence

<220>
<223> Single strand DNA oligonucleotide

<400> 133
cggccttatt cttcaagcac 20

<210> 134
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> sgRNA which would have been used to cut TAS1b

<400> 134
ccaacatagc gtaaaaaatt ggg 23

<210> 135
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> siRNA sequence that targets TuMV (which would have been introduced into the TAS1b backbone by the GEiGS donor using an HDR-mediated swap)

<400> 135
acttgctcac acactcgact g 21

<210> 136
<211> 1200
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS donor which included the desired changes to the TAS1b backbone

<400> 136
atacatacca atttgaccca aaaaggcttt gtactcttta cataacaaaa aaggtcaaat 60

agggaaaacg atgggacttt ataaacccaa gtcactcatt accgacctca taaatctaaa 120

cctaagcggc taagcctgac gtcatttaac aaaaagagta aacatgagcg ccgtcaagct 180

ctgcaactac gatctgtaac tccatcttaa cacaaaagtt gagataggtt cttagatcag 240

gttccgctgt taaatcgagt catggtcttg tctcatagaa aggtactttc ttttacttct 300

cttgagtagc ttctatagct agattgagat tgaggttttg agatattagg ttcgatgtcc 360

cggtctattt gtcaccagcc atgtgtcagt ttcgaccagt cccgtgctct ctgtatttgg 420

ttttatcgga atacggagat ctattttcag gaggagacaa ctttgttttc ttgtgatttt 480

tctcaacaag cgaatgagtc attcatcggt atctaaccat tcaccatatt atcagagtag 540

ttatgattga taggatggta gaagaatatt ctaagtccaa catagcataa cttgctcaca 600

cactcgactg aaaaattggg agatatccgg aatgatatta tacgtaaaaa aaaatgggag 660

atgtccggaa tgatatttgt aatattttta tgttaacgaa acatatttta ggatatgcaa 720

aaaaaagtag atgttggtat tcttgttttg caagatttgt aatgggagtt gtgtagtctt 780

tttatgatgt gtcatgaagt ctaccgccaa ttacatacat cattcacttt gtaattaaat 840

tgtcttcaag tttgtaattt tatttttgtt ttatgtacca aaatctaaat tcagttgttt 900

acaacttgat aacaaaaaaa aagttataca ttacttatgt tttcacactc aatgattcaa 960

gtttttttcta tatccattcg aaagcttctt attaatcatc atacatggat ttttactgct 1020

ttgtatattt gtagtttaca actgtagtgg attaatatca ttcatttagc aacaacaaca 1080

ctcgttaagt ttgctcactt gtcataatta taaaccaacg catgcatcac atatataagt 1140

aaatgcaaaa cctatgcagc tattatcaaa gtcttcactt ctcaaacgtg cttcaatcac 1200

<210> 137
<211> 1039
<212> DNA
<213> Artificial sequence

<220>
<223> GEiGS oligo which would have been expressed in Arabidopsis following GEiGS with the donor of (3) (designed to introduce the mature siRNA sequence of (1) into the TAS1b sequence)

<400> 137
tttgacccaa aaaggctttg tactctttac ataacaaaaa aggtcaaata gggaaaacga 60

tgggacttta taaacccaag tcactcatta ccgacctcat aaatctaaac ctaagcggct 120

aagcctgacg tcatttaaca aaaagagtaa acatgagcgc cgtcaagctc tgcaactacg 180

atctgtaact ccatcttaac acaaaagttg agataggttc ttagatcagg ttccgctgtt 240

aaatcgagtc atggtcttgt ctcatagaaa ggtactttct tttacttctc ttgagtagct 300

tctatagcta gattgagatt gaggttttga gatattaggt tcgatgtccc ggtctatttg 360

tcaccagcca tgtgtcagtt tcgaccagtc ccgtgctctc tgtatttggt tttatcggaa 420

tacggagatc tattttcagg aggagacaac tttgttttct tgtgattttt ctcaacaagc 480

gaatgagtca ttcatcggta tctaaccatt caccatatta tcagagtagt tatgattgat 540

aggatggtag aagaatattc taagtccaac atagcataac ttgctcacac actcgactga 600

aaaattggga gatatccgga atgatattat acgtaaaaaa aaatgggaga tgtccggaat 660

gatatttgta atatttttat gttaacgaaa catattttag gatatgcaaa aaaaagtaga 720

tgttggtatt cttgttttgc aagatttgta atgggagttg tgtagtcttt ttatgatgtg 780

tcatgaagtc taccgccaat tacatacatc attcactttg taattaaatt gtcttcaagt 840

ttgtaatttt atttttgttt tatgtaccaa aatctaaatt cagttgttta caacttgata 900

acaaaaaaaa agttatacat tacttatgtt ttcacactca atgattcaag ttttttctat 960

atccattcga aagcttctta ttaatcatca tacatggatt tttactgctt tgtatatttg 1020

tagtttacaa ctgtagtgg 1039

<210> 138
<211> 25
<212> DNA
<213> Artificial sequence

<220>
<223> parameters for FASTQ

<220>
<221> misc_feature
<222> (1)..(4)
<223> n is a, c, g, t or u

<400> 138
nnnntggaat tctcgggtgc caagg 25

<210> 139
<211> 67
<212> DNA
<213> Artificial sequence

<220>
<223> parameters for FASTQ

<400> 139
agatcggaag agcacacgtc tgaactccag tcaaagatcg gaagagcgtc gtgtagggaa 60

agagtgt 67