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Kelliher, Timothy

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Nichols, Jason

Skibbe, David

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accggctcgn cttcgtcgac gtcgtgcacg ctgtcatgtc cgtgctggtc tttgcngccg 180

tcncgctcgc cgactaccgg gtctccgggt gcctcgtcgc cggccaccgc aagnagatgg 240

acgaggtgat ggagagcttc ccgctcatgg tgggcgccgt gtgcagcggc ctcttcctct 300

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gcttcatgtn ttcttagcaa ctgtaaaaac ttggatgtga tgtgatccta tcnttaatca 480

gtnccgattt gaaatttctt cagnatgnat tatacaagag aatgnnnngn caccaaaaat 540

agctttacat cagatgcaaa atgcattcnt ntcaaaagaa tggtnangac tggctcaatc 600

tatcctaacg taagctgcng ccnntgtatc ctacattntg gcaagatact agtattttac 660

aagcnacaca gtaagcaaag cagcactntc ctacctaccc aaaaaaaann gatgtgacct 720

gcattctgcc tacaatgcat ntcccctagt ttgactagaa actcttcaaa ctgggacgaa 780

acaaacttaa gatanccaaa acttcgcttg ccatccagtt ctgcaagatt cctcttagnn 840

ggggctgtat ntgtcaaatg tcaagaacgt tttagcgtna cggtgtctgt tcaagcaacg 900

gccaacagca accaccgtaa aataaagcat catttgcatn atctctgtta ttctttgcaa 960

catgtncctc gttttgtttt ctgaaactta tcccagaggc aca 1003

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gtaatgcaca cggtttatat gggataatgg atgccaatac ttttttttn nggttgagct 240

ctttctagta gtaccatcta attcaattat aactagtaat tattaccgtg ataagagatc 300

ccattaacaa cgtatgaatc aaacaacacc tttagttcca aagattaaat atcaatgcct 360

aacgagtcct aaaaatgacc actaccgcaa aaatggagcg tccttccaaa aaacatttgt 420

ttttgttatc ttcaaccact gttgatataa gcttcagcac cgactaaaat tttcgatggt 480

cacgtgccac cggaaataag tcgtttgccg ctaaaaataa gcaattttca acaggaaaca 540

atttattttc ggtggcatgt ggccgccaaa aatatttggc cgaaaataag atcttatttt 600

tggcggccca ccctatactg tcaaaaaaaa ttctacggcc ttcagtggcc aacgaaaata 660

agaaaaaaaa ctttttaccg ccacacgtgt ggccgccaaa aataaatatg gtttcttttc 720

ggtggccccc tagccgcaaa aataaacagt tttagaaaaa tatacagaaa gaaaattaca 780

ccagattcaa ccacgtaaca aatatataca catatacatc agattgtaac aaatatatac 840

acatatacat cagattgaca acgcaagtca tctcatcaaa ttcacaacac atgataaaat 900

atatcatatt aaaccacaca agtcatcaca tcgaccaaat tcgcaacacc aatatcacaa 960

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agggattgat gttcttgatg agcttacgaa tagcttttag gtcgtttgat ttgccgaaat 180

gtaatgcaca cggtttatat gggataatgg atgccaatac ttttttttnn nggttgagct 240

ctttctagta gtaccatcta attcaattat aactagtaat tattaccgtg ataagagatc 300

ccattaacaa cgtatgaatc aaacaacacc tttagttcca aagattaaat atcaatgcct 360

aacgagtcct aaaaatgacc actaccgcaa aaatggagcg tccttccaaa aaacatttgt 420

ttttgttatc ttcaaccact gttgatataa gcttcagcac cgactaaaat tttcgatggt 480

cacgtgccac cggaaataag tcatttgccg ctaaaaataa gcaattttca acaggaaaca 540

atttattttc ggtggcatgt ggccgccaaa aatatttggc cgaaaataag atcttatttt 600

tggcggccca ccctatactg tcaaaaaaaa ttctacggcc ttcagtggcc aacgaaaata 660

agaaaaaaaa ctttttaccg ccacacgtgt ggccgccaaa aataaatatg gtttcttttc 720

ggtggccccc tagccgcaaa aataaacagt tttagaaaaa tatacagaaa gaaaattaca 780

ccagattcaa ccacgtaaca aatatataca catatacatc agattgtaac aaatatatac 840

acatatacat cagattgaca acgcaagtca tctcatcaaa ttcacaacac atgataaaat 900

atatcatatt aaaccacaca agtcatcaca tcgaccaaat tcgcaacacc aatatcacaa 960

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<210> 47

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gctgaatcgc caatcgcaaa tgtccgggga tggcctttta cttgaagggt ttcctctgtc 180

tccacctgtc cncgaccatt cagaggaata acntagggag catcaggagg ctgtaaccgn 240

ggaatctgag atgttgaacc cactgtccac agcaccaaat cngcatcgag ngtctgncct 300

ttgaggcctc tttcagcagg ttgaaggtcc aaaattagtt tcctatgatc accgtcaact 360

tcagagtatg taactgtgct acttgantca tcagatgtag gagcctcttt gatgcngctc 420

acaaaatatc ccaanaaaag ctgaatattc cgagactcaa gaacctgata ggaaagtagt 480

ggaaccaaaa taagtgatta cctgatcgct cagaaaatat aatttcctca actgaagtac 540

agatattaaa acaatataat cgtgggccaa cactgctacg taaaatagta aaggaatagc 600

ntgacttctc cangttgtat tgcatgggaa tacatgatcc ttgaacaacc caatggaaat 660

gaattgtttg gtgacatgtt acaaaaggta aaggggtttg catgataaan atagcaacat 720

tgcactaaag ctacaaccct tcaattggat cagaattcag acatgagatg accccagagc 780

atccaaatgg aatatgcaat caattacaat tttaatataa agctgaccag aatagttcat 840

tatatatgaa tagaaccttt tagcttctta ccttcagagc agcgtcacga tttccttgtg 900

gagcagtggg acatacggtt gtttgaacat ttattgcctt tacagtccca gtgtttttta 960

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gctgaatcgc caatcgcaaa tgtccgggga tggcctttta cttgaagggt ttcctctgtc 180

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ggaatctgag atgttgaacc cactgtccac agcaccaaat cngcatcgag ngtctgncct 300

ttgaggcctc tttcagcagg ttgaaggtcc aaaattagtt tcctatgatc accgtcaact 360

tcagagtatg taactgtgct acttgantca tcagatgtag gagcctcttt gatgcngctc 420

acaaaatatc ccaanaaaag ctgaatattc cgagactcaa gaacctgata ggaaagtagt 480

ggaaccaaaa taagtgatta gctgatcgct cagaaaatat aatttcctca actgaagtac 540

agatattaaa acaatataat cgtgggccaa cactgctacg taaaatagta aaggaatagc 600

ntgacttctc cangttgtat tgcatgggaa tacatgatcc ttgaacaacc caatggaaat 660

gaattgtttg gtgacatgtt acaaaaggta aaggggtttg catgataaan atagcaacat 720

tgcactaaag ctacaaccct tcaattggat cagaattcag acatgagatg accccagagc 780

atccaaatgg aatatgcaat caattacaat tttaatataa agctgaccag aatagttcat 840

tatatatgaa tagaaccttt tagcttctta ccttcagagc agcgtcacga tttccttgtg 900

gagcagtggg acatacggtt gtttgaacat ttattgcctt tacagtccca gtgtttttta 960

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aacttagtta agatcaattt agtgattgaa actgtgatcc tgaaacatat cagttgtgtt 180

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aacttagtta agatcgattt agtgattgaa actgtgatcc tgaaacatat cagttgtgtt 180

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gc 182

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<211> 424

<212> DNA

<213> Zea mays

<220>

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<222> (268)..(268)

<223> N = Adenine or Guanine or Cytosine or Thymine

<400> 110

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cctccagttt caagagaggc aaccagaggg gtctgtatac tcctacgaat agacagatat 180

ttatcttcaa ttggaaggag cattcaagac cgtgaggttc tacgcgattt ccgccaacgg 240

ttactctttc cccaacgcga ggctgggnac agcttttccg aaatatatga tgatatacga 300

gcgcatgggg tagaagcaag tcgattgggt cagcctctaa gagatctgta cgatgagatg 360

gaaaggaacg gcgagatagt aaataacggc tcaatcatta tccctggagg cggcggacca 420

gtaa 424

<210> 111

<211> 424

<212> DNA

<213> Zea mays

<220>

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<222> (268)..(268)

<223> N = Adenine or Guanine or Cytosine or Thymine

<400> 111

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catccagttt caagagaggc aaccagaggg gtctgtatac tcctacgaat agacagatat 180

ttatcttcaa ttggaaggag cattcaagac cgtgaggttc tacgcgattt ccgccaacgg 240

ttactctttc cccaacgcga ggctgggnac agcttttccg aaatatatga tgatatacga 300

gcgcatgggg tagaagcaag tcgattgggt cagcctctaa gagatctgta cgatgagatg 360

gaaaggaacg gcgagatagt aaataacggc tcaatcatta tccctggagg cggcggacca 420

gtaa 424

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<213> Artificial Sequence

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<223> SM2914 F primer

<400> 112

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<210> 113

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> SM2914 R primer

<400> 113

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<210> 114

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> SM2914 FAM

<400> 114

cgtaaatttt gtttgatgc 19

<210> 115

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> SM2914 TET

<400> 115

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<210> 116

<211> 616

<212> DNA

<213> Zea mays

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<221> misc_feature

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<223> N = Adenine or Guanine or Cytosine or Thymine

<220>

<221> misc_feature

<222> (402)..(402)

<223> N = Adenine or Guanine or Cytosine or Thymine

<220>

<221> misc_feature

<222> (526)..(526)

<223> N = Adenine or Guanine or Cytosine or Thymine

<400> 116

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tggttgggct caaccgttcg ccctccgtag ggctgagtgg cggatctata aaatctgggg 180

cggaccgaac ctccatttcg aattcaaaat ctaaaggagc ctttcctttg cgcccctctt 240

gggtggatcc ctccccgct tccattagaa gcggtttttg ccccccacc tttgaaggca 300

gtttatcgga agaaccccaa ctttctcctt gggtcatccc cagagtagca ctctgctccc 360

ataggagctg gaatagaaaa cngagccaca ttacgagtgc gncaatgaga gccttccgga 420

gcgccagaaa gagttccgcg agatcaaaaa agcaaaaata ccattgcaac caacacgagg 480

caggaagcag aagcatcaaa caaaatttac gattcatgac aatccnattt ttgaagcgaa 540

aaaacttctt cttccactta ggagaggcgg cagagtaggt gcgaataccc agaagggtac 600

tcgctcctcg tgctcc 616

<210> 117

<211> 616

<212> DNA

<213> Zea mays

<220>

<221> misc_feature

<222> (382)..(382)

<223> N = Adenine or Guanine or Cytosine or Thymine

<220>

<221> misc_feature

<222> (402)..(402)

<223> N = Adenine or Guanine or Cytosine or Thymine

<220>

<221> misc_feature

<222> (526)..(526)

<223> N = Adenine or Guanine or Cytosine or Thymine

<400> 117

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tggttgggct caaccgttcg ccctccgtag ggctgagtgg cggatctata aaatctgggg 180

cggaccgaac ctccatttcg aattcaaaat ctaaaggagc ctttcctttg cgcccctctt 240

gggtggatcc ctccccccgct tccattagaa gcggtttttg ccccccccacc tttgaaggca 300

gtttatcgga agaaccccaa ctttctcctt gggtcatccc cagagtagca ctctgctccc 360

ataggagctg gaatagaaaa cngagccaca ttacgagtgc gncaatgaga gccttccgga 420

gcgccagaaa gagttccgcg agatcaaaaa agcaaaaata ccattgcaac caacacgagg 480

caggaagcag aagcatcaaa aaaaatttac gattcatgac aatccnattt ttgaagcgaa 540

aaaacttctt cttccactta ggagaggcgg cagagtaggt gcgaataccc agaagggtac 600

tcgctcctcg tgctcc 616

<210> 118

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> SM4812 F primer

<400> 118

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<210> 119

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> SM4812 R primer

<400> 119

tcgtagccac gtgctctaat c 21

<210> 120

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> SM4812 FAM

<400> 120

cgggaagaga tcctgtgg 18

<210> 121

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> SM4812 TET

<400> 121

cccgggacct gtgg 14

<210> 122

<211> 1005

<212> DNA

<213> Zea mays

<400> 122

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cgagtctatt caggaatcat tgcagcaatt cttcaatcct aacgaagtca ttctggagga 120

atccaatgaa caacaacgat tacttaatct acggatcagc ttgcgaattt gcagcaccgt 180

aaaagtagta gaatcattac cagcggcacg ctgtgcgcct aagtgcgaaa agacagtgca 240

agctttgtta tgccgaaacc taaatgtcaa gtcagcaaca cttctaaatg ccacttcttc 300

ccgtcgcatc cgtcttcagg acgatatagt cacaggtttt cacttttcag tgagtgaaag 360

attagtatcc gggtctacaa ctttggtaga agcttctacc gtagaacaaa ttcgagaggc 420

cttcttatta gaacccagag acctaattcg agaaggcttt atagtcctca gaaaggtgag 480

ggtgggggggt atccccggga agagatcctg tggagacggg gtgggcctgt agctcagctc 540

agaggattag agcacgtggc tacgaaccac gatgttgggg gttcgaatcc acttctgaga 600

aggaagtatt ggctatgcac cccttccctt gactaactaa gtctgcatat aaggagtgca 660

gaaattctat actgttcgta tcgccgtgca aattatacgc aatttgtttc attgtaaacc 720

cttggccctt ccaattcacg cccggaggag tattacaata gacgttgaaa caaccctgga 780

gcttatctgt aatttgctcc ttgagcgttt ctaacgtcaa taaagtcctc caacttatga 840

tgccagtttt ccgaagccgc ggcttttacc cgctttataa gcgatgagta gggcgatgca 900

taaaaagtca tatttcttgg tgtagggatg gatctcatag gaaaagagat accgaggccc 960

accaaccata tacttgattt atggtttggt ggggaaagaa gagtg 1005

<210> 123

<211> 999

<212> DNA

<213> Zea mays

<400> 123

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atccaatgaa caacaacgat tacttaatct acggatcagc ttgcgaattt gcagcaccgt 180

aaaagtagta gaatcattac cagcggcacg ctgtgcgcct aagtgcgaaa agacagtgca 240

agctttgtta tgccgaaacc taaatgtcaa gtcagcaaca cttctaaatg ccacttcttc 300

ccgtcgcatc cgtcttcagg acgatatagt cacaggtttt cacttttcag tgagtgaaag 360

attagtatcc gggtctacaa ctttggtaga agcttctacc gtagaacaaa ttcgagaggc 420

cttcttatta gaacccagag acctaattcg agaaggcttt atagtcctca gaaaggtgag 480

ggtgggggggt atccccggga cctgtggaga cggggtgggc ctgtagctca gctcagagga 540

ttagagcacg tggctacgaa ccacgatgtt gggggttcga atccacttct gagaaggaag 600

tattggctat gcacccccttc ccttgactaa ctaagtctgc atataaggag tgcagaaatt 660

ctatactgtt cgtatcgccg tgcaaattat acgcaatttg tttcattgta aacccttggc 720

ccttccaatt cacgcccgga ggagtattac aatagacgtt gaaacaaccc tggagcttat 780

ctgtaatttg ctccttgagc gtttctaacg tcaataaagt cctccaactt atgatgccag 840

ttttccgaag ccgcggcttt tacccgcttt ataagcgatg agtagggcga tgcataaaaa 900

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<210> 124

<211> 1371

<212> DNA

<213> Zea mays

<400> 124

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aatacctgta gcacgaaggc gatggccggg agcgtggtcg gcgagcccgt cgtgctgggg 180

cagagggtga cggtgctgac ggtggacggc ggcggcgtcc ggggtctcat cccgggaacc 240

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gactacttcg actacatcgc cggaaccagc accggcggtc tcatcaccgc catgctcacc 360

gcgcccggca aggacaagcg gcctctctac gctgccaagg acatcaacca cttttacatg 420

gagaactgcc cgcgcatctt ccctcagaag agcaggcttg cggccgccat gtccgcgctg 480

aggaagccaa agtacaacgg caagtgcatg cgcagcctga ttaggagcat cctcggcgag 540

acgagggcca agagcacgcc tctgaagaac gctctgctct cggacgtgtg cattggcacg 600

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gagcgcgaat acaacctcat cgacggcggt gtggcggcca acaacccgac gatggttgcg 720

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gtgaagccgt cgaactgccg caggttcctg gtgctgtcca tcgggacggg gtcgacgtcc 840

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gctaggcagc tctccgagga gaggagaaca aggctcgcgc gccgcgtgtc tgccatcaac 1260

ccaagaggct ctagatgtgc gtcgtacgat atctaagaca agtggcttta ctgtcagtca 1320

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<210> 125

<211> 1375

<212> DNA

<213> Zea mays

<400> 125

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aatacctgta gcacgaaggc gatggccggg agcgtggtcg gcgagcccgt cgtgctgggg 180

cagagggtga cggtgctgac ggtggacggc ggcggcgtcc ggggtctcat cccgggaacc 240

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gactacttcg actacatcgc cggaaccagc accggcggtc tcatcaccgc catgctcacc 360

gcgcccggca aggacaagcg gcctctctac gctgccaagg acatcaacca cttttacatg 420

gagaactgcc cgcgcatctt ccctcagaag agcaggcttg cggccgccat gtccgcgctg 480

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acagggagcg aggtacgaac cggtgactgg cgaaggaagc aatgccgatg ccctcggtgg 1200

gctcgctagg cagctctccg aggagaggag aacaaggctc gcgcgccgcg tgtctgccat 1260

caacccaaga ggctctagat gtgcgtcgta cgatatctaa gacaagtggc tttactgtca 1320

gtcacatgct tgtaaataag tagactttat tttaataaaa cataaaaata tatat 1375

<210> 126

<211> 618

<212> DNA

<213> Zea mays

<400> 126

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ccgccgggcg cgggaaggaa gcgccgcgcg gtggcgaggg gcgtgcagaa gacgctctcc 120

aagacgtcca tgctggccaa cttcctcccc acgggcacgc tgctaacctt cgagatgcta 180

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gggtgcctcg tcgccggcca ccgcaaggag atggacgagg tgatggagag cttcccgctc 540

atggtgggcg ccgtgtgcag cggcctcttc ctcttgttcc ccaacacccg ctacggcatc 600

ggttgtttgg ctccgtaa 618

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<223> Waxy1 probe

<400> 127

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<210> 128

<211> 23

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<220>

<223> Waxy1 gRNA target sequence

<400> 128

gggaaagacc gaggagaaga tct 23

<210> 129

<211> 22

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<210> 130

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<223> SM3158 R primer

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cggcctacac taggagt 17

<210> 132

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atataagcat agttcatcta gaatgattac tatcagcgtc cggggaagac cataccctcg 180

gatactgaca atatgcctat caaagatcac atcaacagag aaaagctcaa tcagggctcg 240

gcccaaccat gtgtccctaa ggccctgtgc ccaaaggggt cttgctcggc tccagataag 300

tcagacgccc tccacatcgg agaccaggtc ccgaggccct ctagccctcg aagctcttcc 360

gcctcaagca ccctccatac cgggggacta gatcacgggg ccctcaggac ctctgaggcc 420

cagggccttc cagcctctag agccctattt ctctcgaggc tctccaaacc aggaaccaag 480

ctcactgctc ggcctacact aggagtccct gtaggctaag atctacaact agatctctcg 540

ggcatccttc aagatgtcgt ggtcccaaca gtcgaagccc ctagggtagg acaaccccga 600

acgaagatgc ctcccaaggc agtaccaccc tagtgccatg tgaaccccta ctcaagacga 660

ccataccggg tagttaggat taaggctagc tccagcaacg gaccctaaag ggttctgtac 720

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tctaaattta gaggacgctg ctggattctc tatatataga gtttctctaa acggtactct 840

atccatttga atactttaaa taaccggttt agcaaaacta aaatatgtac aatacatttg 900

agagtataac aaatacgtat gtacaaaaaa taaaaataaa aaatgtctct aatatagata 960

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<211> 1001

<212> DNA

<213> Zea mays

<400> 134

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atataagcat agttcatcta gaatgattac tatcagcgtc cggggaagac cataccctcg 180

gatactgaca atatgcctat caaagatcac atcaacagag aaaagctcaa tcagggctcg 240

gcccaaccat gtgtccctaa ggccctgtgc ccaaaggggt cttgctcggc tccagataag 300

tcagacgccc tccacatcgg agaccaggtc ccgaggccct ctagccctcg aagctcttcc 360

gcctcaagca ccctccatac cgggggacta gatcacgggg ccctcaggac ctctgaggcc 420

cagggccttc cagcctctag agccctattt ctctcgaggc tctccaaacc aggaaccaag 480

ctcactgctc ggcctacact gggagtccct gtaggctaag atctacaact agatctctcg 540

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acgaagatgc ctcccaaggc agtaccaccc tagtgccatg tgaaccccta ctcaagacga 660

ccataccggg tagttaggat taaggctagc tccagcaacg gaccctaaag ggttctgtac 720

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tctaaattta gaggacgctg ctggattctc tatatataga gtttctctaa acggtactct 840

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tggtgccttg acctggtatg 20

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<211> 19

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<210> 139

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<212> DNA

<213> Zea mays

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<223> N = Adenine or Guanine or Cytosine or Thymine

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<220>

<221> misc_feature

<222> (912)..(912)

<223> N = Adenine or Guanine or Cytosine or Thymine

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<221> misc_feature

<222> (935)..(937)

<223> N = Adenine or Guanine or Cytosine or Thymine

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<222> (956)..(956)

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<400> 139

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ggccggccac ttcgacgcgg ctgtggtggt ttaaaattct ccggctcgcc gcccacggcc 180

tcgctgcacg tagttgcagg tgagtgaggt tcttcgattc cccccaaacc cggcccatct 240

ccgacgatcc attatttgtt cgtccatatg aaaatgcatc tctttttgta cccagttgtt 300

acctacatgc agcttttact gcttcattca gttatggtcg tgtacatctt cagaaaacca 360

gacatgttca ggcaagacca gtgggtatgc aaaaacaaca gcaaagtggc tcggcatgtc 420

gacagccagc tgctacttct acttctacat ataaaccacg cgctggcatg aactccactc 480

cagcatggat agacgacatc atcgcacaaa tcacatacca ggtcaaggca ccacgtttca 540

caaacctagt gaacacccaa gaactattat gcaataccat cattttgctc gatagatttt 600

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agctccgtcc cctccaggga cactgcaggt tggcaggccc aaagntagca cagggtctcg 840

caacccacaa ggtcataatc agtacaanca tccatcggca aggggaagca agancnaatc 900

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<223> N = Adenine or Guanine or Cytosine or Thymine

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<223> N = Adenine or Guanine or Cytosine or Thymine

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ggccggccac ttcgacgcgg ctgtggtggt ttaaaattct ccggctcgcc gcccacggcc 180

tcgctgcacg tagttgcagg tgagtgaggt tcttcgattc cccccaaacc cggcccatct 240

ccgacgatcc attatttgtt cgtccatatg aaaatgcatc tctttttgta cccagttgtt 300

acctacatgc agcttttact gcttcattca gttatggtcg tgtacatctt cagaaaacca 360

gacatgttca ggcaagacca gtgggtatgc aaaaacaaca gcaaagtggc tcggcatgtc 420

gacagccagc tgctacttct acttctacat ataaaccacg cgctggcatg aactccactc 480

cagcatggat agacgacatc gtcgcacaaa tcacatacca ggtcaaggca ccacgtttca 540

caaacctagt gaacacccaa gaactattat gcaataccat cattttgctc gatagatttt 600

cctagcccag ttgtttcatc tgagcaagtg tctgtaggaa ctaaaacaca gtagtatgct 660

gtatatactg tcaagcatga aacgcaacca gatcagctgc aggatttgca gcaccaagct 720

ctggccatta ggtaggctgc atatcacaac acacaaaggg aacatcaaac tacatacact 780

agctccgtcc cctccaggga cactgcaggt tggcaggccc aaagntagca cagggtctcg 840

caacccacaa ggtcataatc agtacaanca tccatcggca aggggaagca agancnaatc 900

ccaggtaggt gnacgctgga cagatccgtg ctcannncgc cgttccttgc tccggncttn 960

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<210> 142

<211> 25

<212> DNA

<213> Artificial Sequence

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<223> SM3814 R primer

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<210> 143

<211> 16

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<210> 144

<211> 17

<212> DNA

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<223> SM3814 TET

<400> 144

cctgttcttg tagcaga 17

<210> 145

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<400> 145

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gctactgccg ctgccgcctg ccagtgccag agaggcagag cgcagcctgt ctgtgagggc 180

tccgctccgg ccgccagctt tccaaggtga caggtccttt ctgtttctga ctcctctgcg 240

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gagaacacgc aaaggcaaaa ggcagcagga gacaccgaga tcgccggcag gcggcagccg 360

gacatatgcg gcggcgccgc cgctccatcc tgtcgtgctg cttgcccgct cttcttccat 420

ttgtatcgtc tgcagatacc gccgctatgt tctttctata gcaaatagag ataacgagag 480

atctttccag ttcttctgct acaagaacag gaaactgtgt atccatgtga tgtgaatgaa 540

gcacgacaat ttttttttt ctgattctcc aacaacggac gaaccagctt agatttccac 600

ttgctgttgt aacatgacac cacagggcga cacaggctaa ttacacacaa aagaaccccg 660

gagaagctac cctatccacc actacacacc ttcagtccac aagaactctc atagtttact 720

ctactactgt aatgtaatct gtggctcaca ccatccagat ccatgttccc tccttcctcc 780

gtcaccatct gacgatggta agccaccagc agccaaaaac aaatgccaaa agatcacaga 840

gaacgcgcag aaactacttc gtgctaacct acctagcatt acttcaagtt tctccgtgtt 900

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gccattcccc gaaccaccac caggtaccgg agcccaccga c 1001

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gctactgccg ctgccgcctg ccagtgccag agaggcagag cgcagcctgt ctgtgagggc 180

tccgctccgg ccgccagctt tccaaggtga caggtccttt ctgtttctga ctcctctgcg 240

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gagaacacgc aaaggcaaaa ggcagcagga gacaccgaga tcgccggcag gcggcagccg 360

gacatatgcg gcggcgccgc cgctccatcc tgtcgtgctg cttgcccgct cttcttccat 420

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gcacgacaat ttttttttt ctgattctcc aacaacggac gaaccagctt agatttccac 600

ttgctgttgt aacatgacac cacagggcga cacaggctaa ttacacacaa aagaaccccg 660

gagaagctac cctatccacc actacacacc ttcagtccac aagaactctc atagtttact 720

ctactactgt aatgtaatct gtggctcaca ccatccagat ccatgttccc tccttcctcc 780

gtcaccatct gacgatggta agccaccagc agccaaaaac aaatgccaaa agatcacaga 840

gaacgcgcag aaactacttc gtgctaacct acctagcatt acttcaagtt tctccgtgtt 900

cttcttctga acctgcttgc ttgctattgt aggagggaca ccaacccaag aaccgcagcc 960

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<210> 148

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> SM3362 R primer

<400> 148

tcaggaaaca tcagtgccca tac 23

<210> 149

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> SM3362 FAM

<400> 149

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<210> 150

<211> 19

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<223> SM3362 TET

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<210> 151

<211> 1001

<212> DNA

<213> Zea mays

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aatgagaagt gtattttgat caaagaaaag tcatacaaaa ttgatttgac cccttagttt 180

ctgttgcaat atgttatcat ttgccaaaca gtcaatacca tctctcagag gcaccttgaa 240

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atacagcagc atcagtcagc tgatccctaa aataaggttg tttggtttaa ggtcaggggt 780

tgggacatga ctatcctagt gttgtcccag ttatcactca aaattggatc ctagtgttgt 840

cccagttatc actcaaaatt ggagggacga gagaggacgc cagggaacgt ccctgtcctg 900

gttgtcaagt tatcccttaa aattaggcag cagtgattaa cactgccatc gattacagcg 960

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aatgagaagt gtattttgat caaagaaaag tcatacaaaa ttgatttgac cccttagttt 180

ctgttgcaat atgttatcat ttgccaaaca gtcaatacca tctctcagag gcaccttgaa 240

tgcacataca ttatggttct tttttcccat ccattgcaga tatgactaaa atgaagatcg 300

acggcgacaa taactttggg gagcagaaga gccatcaccg ctgcaggcgc aagaagcatg 360

atgctagggt tttggattcc ttgagttgaa gatttttgtt gtgctagaag tggtgaagcg 420

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tagttgtttt ttacacttgt tagcactata taatggttgt ttgagttgga tgcgtgattg 720

atacagcagc atcagtcagc tgatccctaa aataaggttg tttggtttaa ggtcaggggt 780

tgggacatga ctatcctagt gttgtcccag ttatcactca aaattggatc ctagtgttgt 840

cccagttatc actcaaaatt ggagggacga gagaggacgc cagggaacgt ccctgtcctg 900

gttgtcaagt tatcccttaa aattaggcag cagtgattaa cactgccatc gattacagcg 960

caggctaatt tttacacgaa ttatatgtgt tatatcctgc t 1001

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<210> 154

<211> 24

<212> DNA

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<400> 156

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<210> 157

<211> 171

<212> DNA

<213> Zea mays

<400> 157

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<400> 158

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cagttgctcc catgctwact astatgaayy ggttgctgat gcctaattwa a 171

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caaatcatcc gatcgacaat cgatgatgag gatttaaaat accttgcttt gcctagagtc 360

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aaaattttag ggctaatttg taacattctt ttaatatatt tggacaatgg gtttatagta 180

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<211> 20

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<223> gRNA 2 (DMP)

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ggccgggagt agcatctcga 20

<210> 167

<211> 20

<212> DNA

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<220>

<223> gRNA 3 (DMP)

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<211> 23

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<223> gRNA 4 (MATL)

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<211> 20

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<223> iSoUbi4-02

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<223> LbCas12a-27

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<223> iAtBAF60-01

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tgtcaaacac tgatagttta aactggcact agcctaacgg tgttgactaa ctaggccgct 180

tccctaatta gctaacccgg gggcgcgccg ggacccgaat tcattatgtg gtctaggtag 240

gttctatata taagaaaact tgaaatgttc taaaaaaaaa ttcaagccca tgcatgattg 300

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