

MU08187296.TXT
SEQUENCE LISTING

<110> BASF Plant Science
<120> Method of excising a nucleic acid sequence from a plant genome
<130> B 8673 / RN
<150> 60/941,227
<151> 31.05.2007
<160> 29
<170> PatentIn version 3.3
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<211> 14869
<212> DNA
<213> Artificial

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promoter/intron] reverse-RB

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MU08187296.TXT

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MU08187296.TXT

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MU08187296.TXT

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MU08187296.TXT

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MU08187296.TXT

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<210> 6
<211> 3164
<212> DNA
<213> Artificial

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<220>
<223> SuperPromoter::Ubiquitin intron::I-SceI::Nos terminator cassette
that replaces the reverse orientation [Super
promoter::I-SceI::Nos] cassette in pLM 319

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<220>
<221> promoter
<222> (1)..(1112)
<223> Super promoter

```

MU08187296.TXT

<220>
 <221> Intron
 <222> (1123)..(2167)
 <223> Z mays ubiquitin intron

<220>
 <221> misc_signal
 <222> (2181)..(2888)
 <223> I-SceI CDS

<220>
 <221> terminator
 <222> (2912)..(3164)
 <223> I-SceI CDS

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MU08187296.TXT

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<210> 7
 <211> 32
 <212> DNA
 <213> Artificial

<220>
 <223> Fwd PCR primer for amplification of I-SceI with AscI restriction site upstream of initiating ATG

<400> 7
 aggcgcgcca tgaaaaacat caaaaaaaaaac ca 32

<210> 8
 <211> 29
 <212> DNA
 <213> Artificial

 <220>
 <223> Rev PCR primer for amplification of I-SceI with SbfI site
 downstream of TAA termination codon

 <400> 8
 gtcctgcag gttatttcag gaaagtttc 29

 <210> 9
 <211> 22
 <212> DNA
 <213> Artificial

 <220>
 <223> oligonucleotide used with SeqID #10 to generate an I-SceI
 recognition site flanked by SalI and XbaI sites

 <400> 9
 tcgataggga taacaggga at 22

 <210> 10
 <211> 22
 <212> DNA
 <213> Artificial

 <220>
 <223> oligonucleotide used with SeqID #9 to generate an I-SceI
 recognition site flanked by SalI and XbaI sites

 <400> 10
 ctagattacc ctgttatccc ta 22

 <210> 11
 <211> 18
 <212> DNA
 <213> Artificial

 <220>
 <223> oligonucleotide used with SeqID #12 to generate an I-SceI
 recognition site flanked by PacI sites

 <400> 11
 tagggataac agggtaat 18

 <210> 12
 <211> 18
 <212> DNA
 <213> Artificial

 <220>
 <223> oligonucleotide used with SeqID #11 to generate an I-SceI
 recognition site flanked by PacI sites

 <400> 12
 taccctgtta tcccta at 18

 <210> 13
 <211> 18
 <212> DNA

<213> Artificial

<220>
<223> Fwd PCR primer used for RT-PCR analysis of maize endogenous
constitutively expressed gene used as internal control for
transgene expression level assays

<400> 13
tctgccttgc ccttgctt 18

<210> 14
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Rev PCR primer used for RT-PCR analysis of maize endogenous
constitutively expressed gene used as internal control for
transgene expression level assays

<400> 14
caattgcttg gcaggtctta ttt 23

<210> 15
<211> 20
<212> DNA
<213> Artificial

<220>
<223> Fwd PCR primer used for RT-PCR analysis of transgene expression
levels via amplification of 3' UTR region encoded by NOS
terminator

<400> 15
tccccgatcg ttcaaacatt 20

<210> 16
<211> 25
<212> DNA
<213> Artificial

<220>
<223> Rev PCR primer used for RT-PCR analysis of transgene expression
levels via amplification of 3' UTR region encoded by NOS
terminator

<400> 16
ccatctcata aataacgtca tgcatt 25

<210> 17
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Fwd PCR primer used for RT-PCR analysis of GUS expression levels

<400> 17
ttacgtggca aaggattcga t 21

<210> 18
<211> 20
<212> DNA

<213> Artificial

<220>
<223> Rev PCR primer used for RT-PCR analysis of GUS expression levels

<400> 18
gcccgaatcc agtcattaa 20

<210> 19
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Fwd primer for RT-PCR analysis of expression of I-SceI

<400> 19
gaccaggtat gtctgtgta cga 23

<210> 20
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Rev primer for RT-PCR analysis of expression of I-SceI

<400> 20
caggtggta acacgttctt tttt 24

<210> 21
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Fwd PCR primer used for detection of homologous recombination of JB034 locus

<400> 21
gatcgagtg cgtgtgtgac acc 23

<210> 22
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Rev PCR primer used for detection of homologous recombination of JB034 locus

<400> 22
gtccgcatct tcatgacgac c 21

<210> 23
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Fwd PCR primer used for detection of homologous recombination of JB039 locus

<400> 23
ctaattggtgg ggctttcaag g 21

<210> 24
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Rev PCR primer used for detection of homologous recombination of JB039 locus. When used with SeqID #23, amplification of a recombined locus should yeild a 0.9Kb product, while amplification of a native locus should amplify a 6.7Kb p

<400> 24
ccttaaggcg atcgcgctga ggc 23

<210> 25
<211> 20
<212> DNA
<213> Artificial

<220>
<223> Rev PCR primer used for confirming the presence of the JB039 locus. When used with SeqID #23, amplification of an unrecombined locus should yeild a 1.2Kb product, while the recombined locus should fail to produce a PCR product in this

<400> 25
agtgtacgga ataaaagtcc 20

<210> 26
<211> 708
<212> DNA
<213> Artificial

<220>
<223> I-SceI gene codon optimized for expression in maize and soybean using the Leto program from Entelechon GmbH, Regensburg, Germany.

<400> 26
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attctgggcg atgcttacat taggtctagg gatgagggca agacctactg catgcagttc 180
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gtgctgaaca ccagctcttt caccttcgag gaggtggaat acctggtgaa gggcctgagg 540
aacaagttcc agctgaactg ctacgtgaag attaacaaga acaagcctat tatttacatt 600
gattctatgt cttacctgat tttctacaac ctgattaagc cttacctgat tcctcagatg 660
atgtacaagc tgcctaacac catctcttct gagaccttcc tgaagtga 708

MU08187296.TXT

<210> 27
 <211> 923
 <212> DNA
 <213> Artificial

<220>
 <223> Optimized Coding region of the Enzyme with Attachment regions

<400> 27
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 taagaagaac caggtgatga acctggggcc taactctaag ctgcttaagg aatacaagtc 180
 tcagctgatt gagctgaaca ttgagcagtt cgaggctggc ataggcctga ttctgggcga 240
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 caaggcttac atggatcacg tgtgcctgct gtacgatcag tgggtgctgt ctctcctca 360
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 tgatggcggc aagtgggatt acaacaagaa ctctaccaac aagtctattg tgctgaacac 600
 ccagtctttc accttcgagg aggtggaata cctgggtgaag ggcctgagga acaagttcca 660
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 ttacctgatt ttctacaacc tgattaagcc ttacctgatt cctcagatga tgtacaagct 780
 gcctaacacc atctcttctg agaccttcct gaagtgcct gcaggccagc tttcttgtag 840
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 agtcaaaata aaatcattat ttg 923

<210> 28
 <211> 30
 <212> DNA
 <213> Artificial

<220>
 <223> Recognition sequence of I-SceI

<400> 28
 agttacgcta gggataacag ggtaatatag 30

<210> 29
 <211> 18
 <212> DNA
 <213> Artificial

<220>
 <223> Core sequence of I-SceI

<400> 29
 tagggataac agggtaat 18