Supplemental Data

Supplemental Figure Legends

Supplemental Figure 1. Phenotypes of *osmads34* mutants.

A: Plant morphology of wild type (left), *osmads34-1* (middle) and *osmads34-2* (right) at heading stage. B and C: Stem elongation patterns of *osmads34-1*(B) and *osmads34-2*(C). D: The length pattern of five internodes and the panicle of wild type, *osmads34-1, osmads34-2* respectively. Numbers indicate the internode positions of plant from the top to base. E and F: The outer surfaces of lemmas *osmads34-1* (E) and *osmads34-2* (F) showing regular bulges as wild type (arrow). Bar= 10 cm in A , 5 cm in B and C, 50 μm in E and F.

Supplemental Figure 2. Histological analysis of the mutant spikelets

A and F: Wild-type spikelet. A: Transverse section of the top of a wild-type spikelet (green arrow in Fig. 1D) showing five vascular bundles in the lemma (star), three vascular bundles in the palea and only one vascular bundle in the sterile lemma. F: A close-up of the palea of top transverse section (green arrow in Fig. 1D). Note that four types of cell identity can be observed in the wild type lemma and palea, i.e, silicified cell (sc), fibrous sclerenchymatous cell (fs), spongy parenchymatous cell (spc) and non-silicified cell (nsc).

B: Transverse section of the top of the *osmads34-1* spikelet (green white arrow in Fig. 1E) showing five vascular bundles (indicated by blue stars) of the sterile lemma.

G: A close-up of the *osmads34-1* palea of top transverse section (green arrow in Fig. 1E) showing four cell types of sc, fs, spc and nsc.

C: Transverse section of the bottom of an *osmads34-2* spikelet (green arrow in Fig. 1F) showing more vascular bundles (indicated by blue stars) in the lemma/leaf-like sterile lemmas.

H: A close-up of palea of *osmads34-2* of top transverse section (green arrow in Fig. 1F). Four cell types of sc, fs, spc and nsc are observed.

D and I: *osmads1-z* spikeletes.

D: Transverse section of the bottom of an *osmads1-z* spikelet showing leafy le/pa, four enlarged lodicules and reduced stamens (green arrow in Fig. 1L).

I: Close-up of the sterile lemma (red arrow in Fig. 1L). The *osmads1-z* sterile lemma

had the similar internal sclerenchymatous cells as wild type.

E and J: *osmads34-1 osmads1-z* spikelets.

E: Transverse section of the top of the *osmads34-1 osmads1-z* spikelet showing le/pa like sterile lemma, leafy le/pa, four enlarged lodicules and reduced stamens(green arrow in Fig. 1M).

J: A close-up of the sterile lemma (red arrow in Fig. 1M), four cell types are observed in elongated sterile lemma.

sl: sterile lemma; lsl: lemma/leaf-like sterile lemma; le: lemma; pa: palea; st: stamen; ca: carpel; elo: enlarged lodicules; fs: fibrous sclerenchyma; nsc: non-silicified cell; sc: silicified cell; scl: sclerenchymatous cell; spc: spongy parenchymatous cell.

Bar=100 μm in A to E, 50 μm in F-J.

Supplemental Figure 3. Allelic and complementary analyses of *osmads34* mutants and ectopic expression of *OsMADS34* in wild type.

A: Panicle of *osmads34-1* (left); F1 plant of *osmads34-1* and *osmads34-2* (middle) showing similar defect to *osmads34-1* and *osmads34-2*; and *osmads34-2* (right). B: RT-PCR analysis of *OsMADS34* transcripts of wild type, *osmads34-1* and *osmads34-1* flowers at stage In 7. The expression level of *OsMADS34* in *osmads34-1* is close to that of wild type, but no detectable transcripts of *OsMADS34* in *osmads34-2*. C: The *osmads34-1* spikelet at In9. D: The Spikelet of F1 plant of *osmads34-1* and *osmads34-2* at stag In9. E: The *osmads34-2* spikelet at stage In9. F: Sequencing analysis of *OsMADS34* from the wild type, *osmads34-1*, *osmads34-2,* as well as the F1 plant of *osmads34-1* and *osmads34-2*, the mutation marked by red box. G: The wild-type panicle at In9. H: The panicle of wild-type plant over expressing *OsMADS34* at In 9. I: The panicle of *osmads34-1* plant over expressing *OsMADS34* at In9. J: The panicle of *osmads34-2* plant over expressing *OsMADS34* at In9. K: The panicle of *osmads34-1* plant at In9. L: The panicle of *osmads34-2* at In9. M: Spikelets of wild type (wt), wild-type plant over expressing *OsMADS34* (wt-OX), *osmads34-1* plant over expressing *OsMADS34* (*osmads34-1-OX*), *osmads34-2* plant over expressing *OsMADS34* (*osmads34-2-OX*), *osmads34-1* and *osmads34-2*. *OE means* over expressing *OsMADS34*. N: RT-PCR analysis of *OsMADS34* mRNA levels in wild type, *osmads34-1* and transgenic lines. RNA was extracted from young panicles of each plant (Stage In7). OX: Over expression. Bar=2 cm in A and G-L, 2 mm in C-E and 3 mm in M.

Supplemental Figure 4. Sequence analysis of the *OsMADS34* gene and its homologs.

A: 38 MADS-box genes from *Lolium perenne*, *Oryza sativa*, *Sorghum bicolor*, *Triticum aestivum* and *Zea mays*, are used to construct Maximum-likelihood (ML) tree using the PHYML software (http://atgc.lirmm.fr/phyml/) with the WAG model and an estimated proportion of invariable sites plus 8 categories of gamma distribution of substitution rates and 100 nonparametric bootstrap replicates. The MIKC motifs of 22 grass SEP-like proteins (7 in OsMADS5 clade, 8 in OsMADS1 clade, and 7 in OsMADS34 clade) are indicated, and the exon-intron patterns of 6 grass SEP-like genes are compared.

B: OsMADS1, OsMADS5 and OsMADS34 were aligned to compare their MIKC motifs. We also found that, after the gene duplication, *OsMADS34* acquired distinct sequence structure in its C-terminal region.

Supplemental Figure 5. Sequence aligment of the *OsMADS34* and its homologs.

Black dark and grey boxex indicate the similar nucleotides.

Supplemental Figure 6. OsMADS34 has no transactivational activity, forms homodimer and has no interaction with OsMADS1 in yeast cells.

Supplemental Figure 7. Analysis and identification of the *osmads1-z* mutant

A-C are the allelic test between the *nsr* and *osmads1-z*; A: spikelet of *nsr*; B: spikelet of *osmads1-z*; C: spikelet of F1 progeny of *nsr* and *osmads1-z*. D: RT-PCR analysis of *OsMADS1* in wild-type and *osmads1-z*, no detectable transcript of *OsMADS1* was observed in the *osmads1-z* spikelet at stage In7; E: Identification of the deleted *OsMADS1* fragment in *osmads1-z* with smaller size compared with wild type, M indicates molecular marker.

Bar: 2 mm in A-C.

Supplemental Table 1. Primers used in this study

Name	Sequence
RM3525	F 5-ACACTCTCAGCTCATCAAGACC-3
	R 5-GGGCAAGTGGTCAAATCTTG-3
WHM0302	F 5-CTATAAAAGCTGGACCGTGAA-3
	R 5-GCAAGCATTCCAAACCGA-3
RM520	F 5-AGGAGCAAGAAAAGTTCCCC-3
	R 5-GCCAATGTGTGACGCAATAG-3
RM5813	F 5-GCAGCCCTAGCAATTCAGTC-3
	R 5-CTCCCTTTCCCTCCACCAC-3
WHM0312	F5-CCGACACTTCAGGGAATAAA-3
	R 5-CGCCAGGACTAAACTAAACAGC-3
LHS0312	F 5-CGGTACAGCCAGCCAGG-3
	R 5-TCTAAACAGCTCCATTCCCC-3
RM468	F 5-CCCTTCCTTGTTGTGGCTAC-3
	R 5-TGATTTCTGAGAGCCAACCC-3
34-qRTF	CAACCAGAGCACTTCTTCCA
34-qRTR	CTGAAGCTGAAACGGTAGCT
OsMADS1-qRTF	ATCACCATCAGGGTCTTCTC
OsMADS1-qRTR	CAACCATGTCTGCTGCTTCA
G1RTF	ACGCATTCTGTCACGTCTCT
G1RTR	CTGCGTGAAGGTCTGCCAGT
34-RTF	5-ATGGGGCGAGGCAAGGTGG-3
34-RTR	5-CTAGGCCATCCACTCAGGAGGATAACC-3
34IF	5-CAGGAATATGTGAACTTGAAGGCACATGTTGAG-3
34IR	5-CGAGGGCCTGGAAGAAGTGCT-3
OsMADS1-IF	5-GCAACTACAACTCACAGGATGC-3
OsMADS1-IR	5-GATGAGCAACCATGTCTGCTGCT-3
34ProF	5-AAAAGAATTCCTTACTTTCTCAGACATCGCAACAGGCT-3
34ProR	5-GGATCCAGCTCGTAGGCCTTCTTG-3
OsMADS34-YF	5-GAATTCATGGGGCGAGGCAAGGTGG-3
OsMADS34-YR	5-GGATCCCTAGGCCATCCACTCAGGAG-3
OsMADS1-YF	5-CGCGGATCCAGATGGGGAGGGGGAAGG-3
OsMADS1-YR	5-TGCCTGCAGGGAATGGTCACCC-3

Supplemental Figures and Legends **Fig.S1**

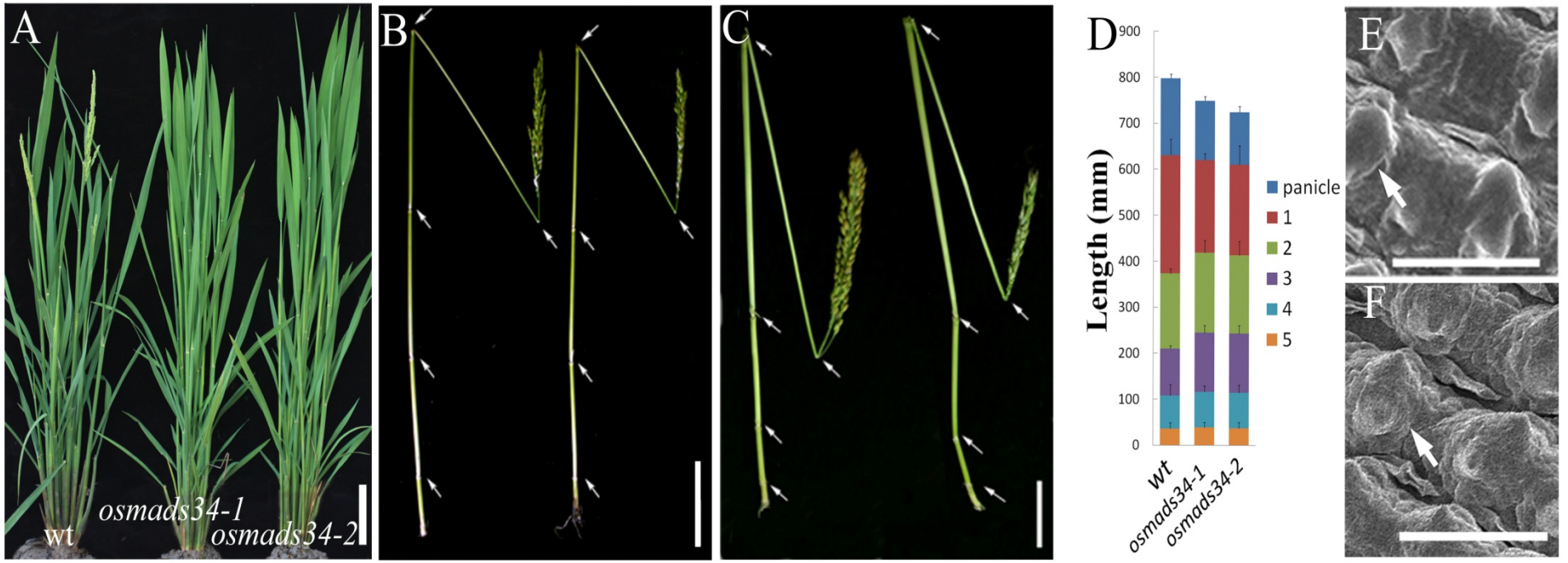

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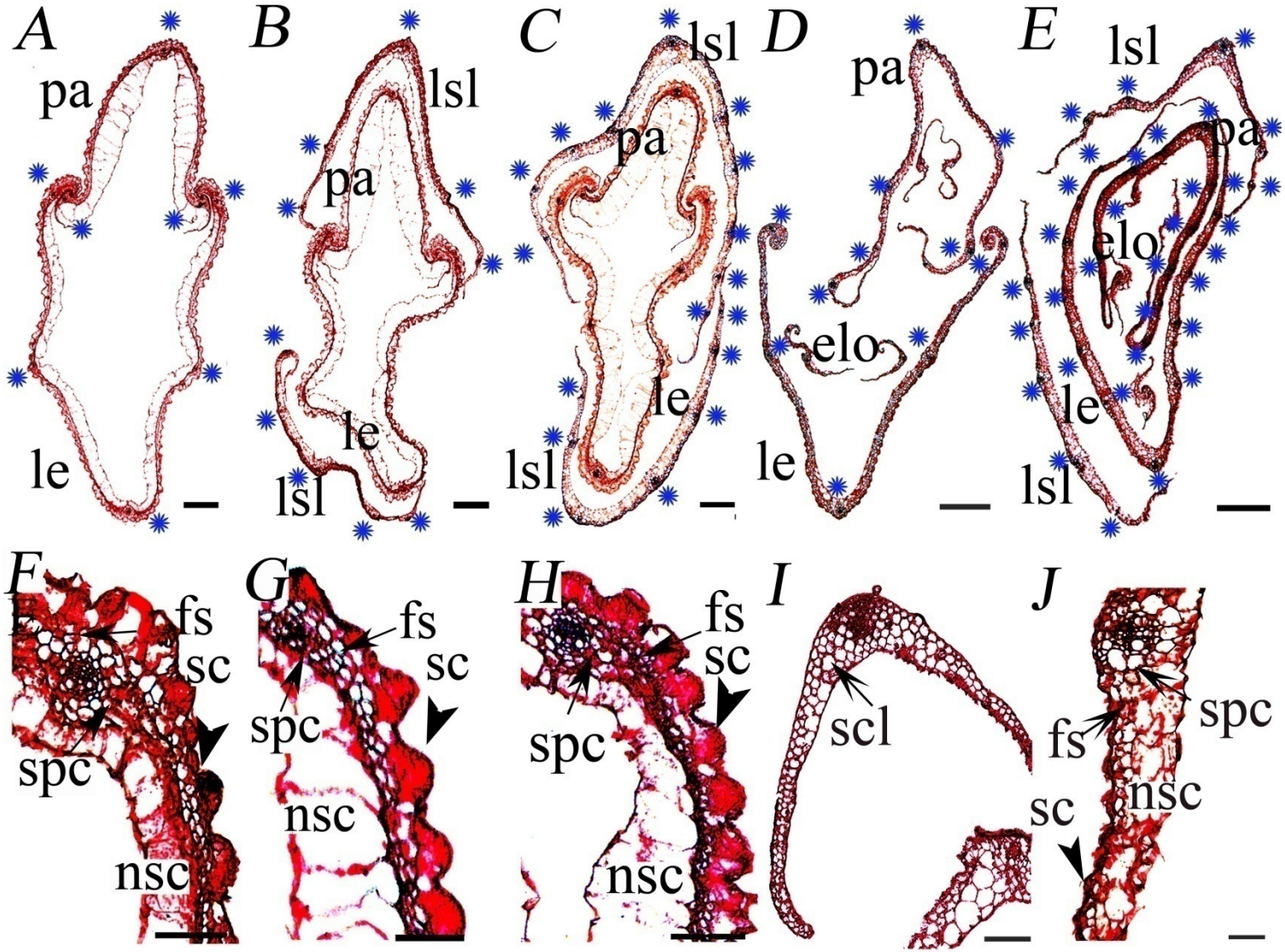
Fig.S2


A
pa
le
B
lsl
pa
le
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C
lsl
pa
le
lsl
D
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elo
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E
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elo
le
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F
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sc
spc
nsc
G
fs
sc
spc
nsc
H
fs
sc
spc
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I
scl
J
spc
fs
nsc
sc

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B: Transverse section of the top of the *osmads34-1* spikelet (green white arrow in Fig. 1E) showing five vascular bundles (indicated by blue stars) of the sterile lemma.

G: A close-up of the *osmads34-1* palea of top transverse section (green arrow in Fig. 1E) showing four cell types of sc, fs, spc and nsc.

C: Transverse section of the bottom of an *osmads34-2* spikelet (green arrow in Fig. 1F) showing more vascular bundles (indicated by blue stars) in the lemma/leaf-like sterile lemmas.

H: A close-up of palea of *osmads34-2* of top transverse section (green arrow in Fig. 1F). Four cell types of sc, fs, spc and nsc are observed.

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D: Transverse section of the bottom of an *osmads1-z* spikelet showing leafy le/pa, four enlarged lodicules and reduced stamens (green arrow in Fig. 1L).

I: Close-up of the sterile lemma (red arrow in Fig. 1L). The *osmads1-z* sterile lemma had the similar internal sclerenchymatous cells as wild type.

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J: A close-up of the sterile lemma (red arrow in Fig. 1M), four cell types are observed in elongated sterile lemma.

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Bar=100 μm in A to E, 50 μm in F-J.

Fig.S3

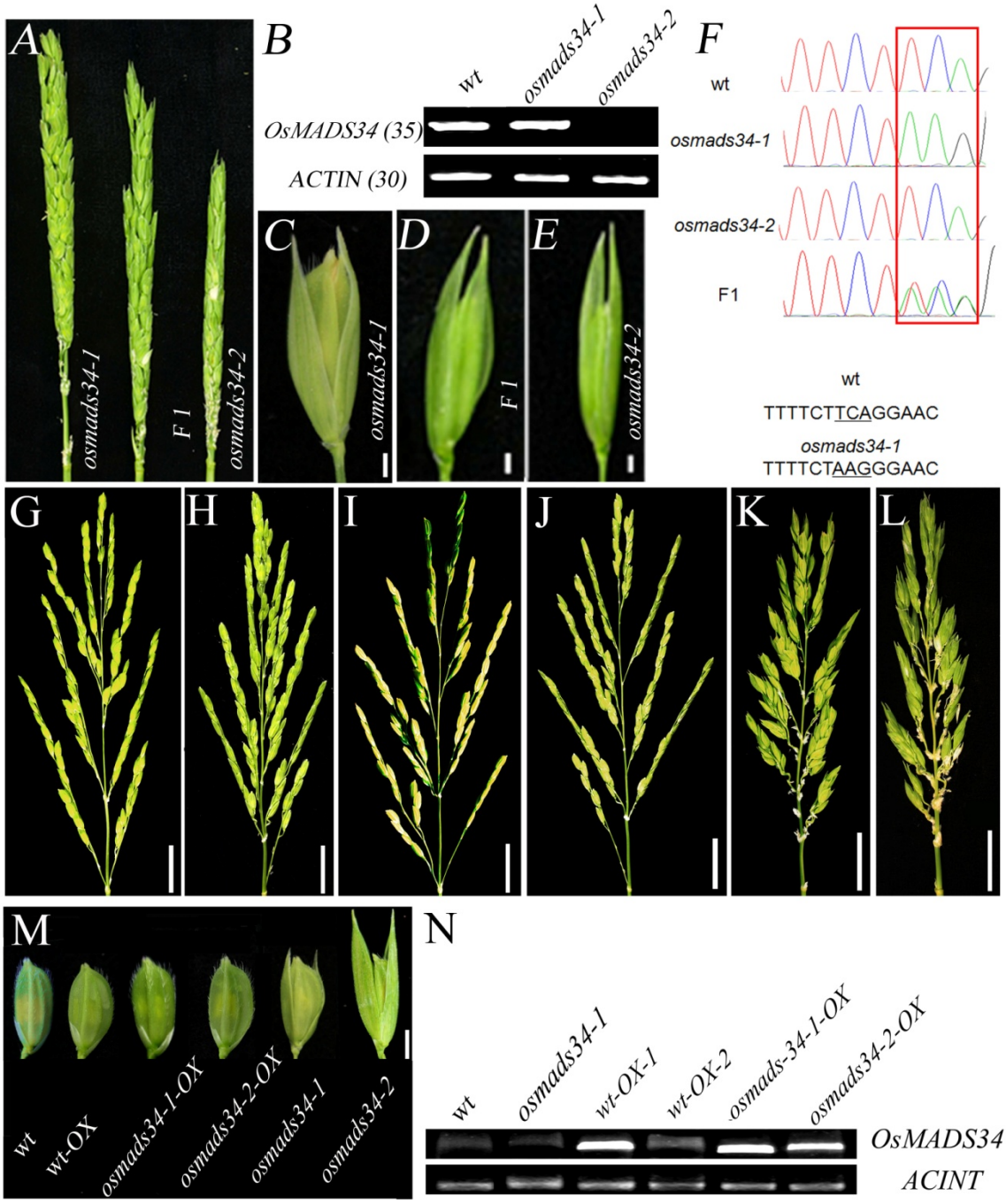

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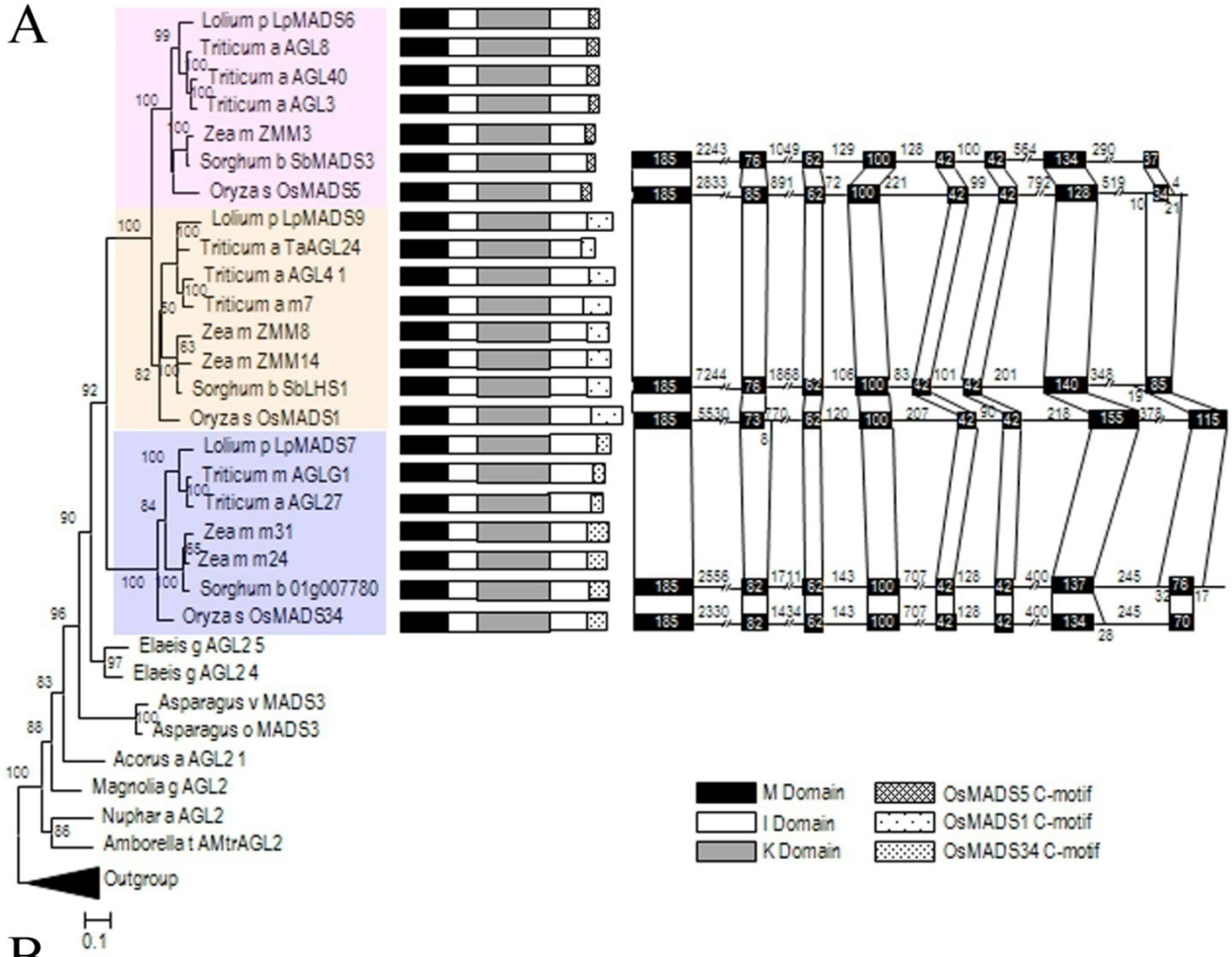
Fig.S4



B

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OsMADS1  : MGRGKVELKRIENKISRQVTFAKRRNGLLKKAYELSLLCDAEVALIIFSGRGRLFEFSSS :  60
OsMADS5  : MGRGKVELKRIENKISRQVTFAKRRNGLLKKAYELSVLCDAEVALIIFSTRGRLFEFSTS :  60

                    *         80        *        100        *        120
OsMADS34 : SNMLKTLERYQRYIYA--SQDAAAPTSDEMQNNYQEYVNLKAHVEILQQSQRNLLGEDLA : 118
OsMADS1  : SCMYKTLERYRSCNYN--SQDAAAAP-ENEI--NYQEYLKLKTRVEFLQTTQRNILGEDLG : 115
OsMADS5  : SCMYKTLERYRSCNYNLNSCEASAALETEL-SNYQEYLKLKTRVEFLQTTQRNLLGEDLV : 119

                    *        140        *        160        *        180
OsMADS34 : PLATNELEQLESQVVRTLKQIRSRKTQVLLDELCDLKRKEQMLQDANRVLKRKLDEIDVE : 178
OsMADS1  : PLSMKELEQLENQIEVSLKQIRSRKNQALLDQLFDLKSKEQQLQDLNKDLRKKLQETSAE : 175
OsMADS5  : PLSLKELEQLENQIEISLMNIRSSKNQQLLDQVFELKRKEQQLQDANKDLKRKIQETSGE : 179

                    *        200        *        220        *        240
OsMADS34 : AAPPQPPWNGNCSNGH-G-----GGG-----GVFSSEPPQPEHFFQALGL-------H-A : 219
OsMADS1  : NVL-HMSWQDGG--GHSGSSTVLADQPHHHQGLLHPHPDQGDHSLQ-IGYHHPHAHHQA : 231
OsMADS5  : NML-HISCQDVGPSGH-ASE---ANQEFLHHAI--CDP-SLH-----IGY--------QA : 218

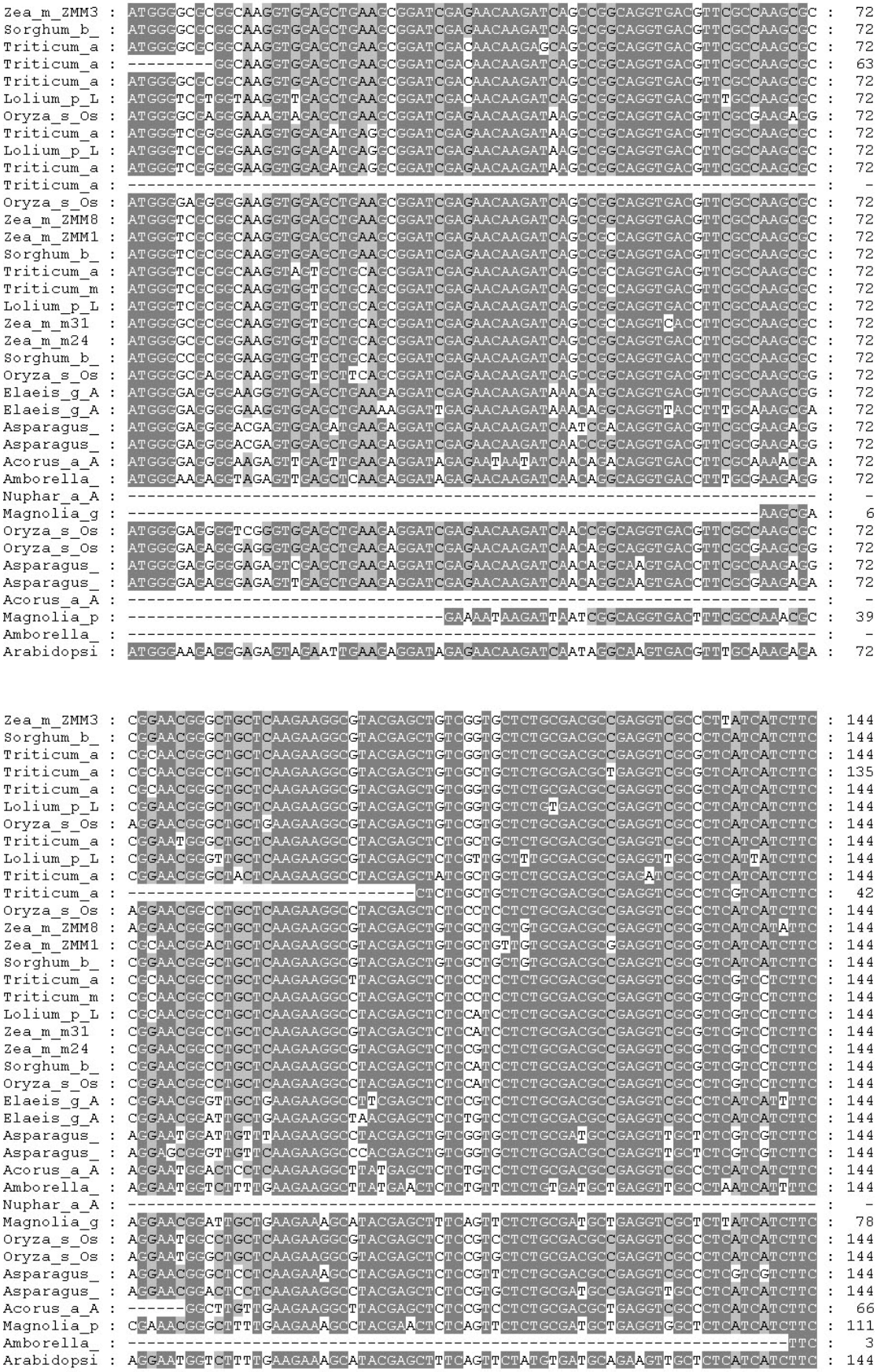
                    *        260        *
OsMADS34 : V-D-VNQPPA----PPEGGYPPEWMA---------- : 239
OsMADS1  : YMDHLSNEAADMVAHHENEHIPSGWI---------- : 257
OsMADS5  : YMDHLNQ---------------------------- : 225
```

Supplemental Figure 4. Sequence analysis of the *OsMADS34* gene and its homologs.

A: 38 MADS-box genes from *Lolium perenne*, *Oryza sativa*, *Sorghum bicolor*, *Triticum aestivum* and *Zea mays*, are used to construct Maximum-likelihood (ML) tree using the PHYML software (http://atgc.lirmm.fr/phyml/) with the WAG model and an estimated proportion of invariable sites plus 8 categories of gamma distribution of substitution rates and 100 nonparametric bootstrap replicates. The MIKC motifs of 22 grass SEP-like proteins (7 in OsMADS5 clade, 8 in OsMADS1 clade, and 7 in OsMADS34 clade) are indicated, and the exon-intron patterns of 6 grass SEP-like genes are compared.

B: OsMADS1, OsMADS5 and OsMADS34 were aligned to compare their MIKC motifs. We also found that, after the gene duplication, *OsMADS34* acquired distinct sequence structure in its C-terminal region.

Fig.S5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Sorghum_b_ : ATGGGGCGCGGCAAGGTGGAGCTCAAGCGGATCGAGAACAAGATCAGCGGCAGGTGACGTTCGCCAAGCGC : 72
Triticum_a : ATGGGGCGCGGCAAGGTGGAGCTCAAGCGGATCGACAACAAGAGCAGCGGCAGGTGACGTTCGCCAAGCGC : 72
Triticum_a : ---------GGCAAGGTGGAGCTCAAGCGGATCGACAACAAGATCAGCGGCAGGTGACGTTCGCCAAGCGC : 63
Triticum_a : ATGGGGCGCGGCAAGGTGGAGCTCAAGCGGATCGACAACAAGATCAGCGGCAGGTGACGTTCGCCAAGCGC : 72
Lolium_p_L : ATGGGTCGTGGTAAGGTTGAGCTCAAGCGGATCGACAACAAGATCAGCGGCAGGTGACGTTTGCCAAGCGC : 72
Oryza_s_Os : ATGGGGCGAGGGAAAGTAGAGCTCAAGCGGATCGAGAACAAGATAAGCGGCAGGTGACGTTCGCGAACAGG : 72
Triticum_a : ATGGGTCGGGGAAGGTGGAGATCAGGCGGATCGAGAACAAGATAAGCGGCAGGTGACGTTCGCCAAGCGC : 72
Lolium_p_L : ATGGGTCGCGGGAAGGTGGAGATCAGGCGGATCGAGAACAAGATAAGCGGCAGGTGACCTTCGCCAAGCGC : 72
Triticum_a : ATGGGTCGGGGGAAGGTGGAGATCAGGCGGATCGAGAACAAGATAAGCGGCAGGTGACGTTCGCCAAGCGC : 72
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Zea_m_ZMM8 : ATGGGTCGCGGCAAGGTGGAGCTCAAGCGGATCGAGAACAAGATCAGCGGCAGGTGACGTTCGCCAAGCGC : 72
Zea_m_ZMM1 : ATGGGTCGCGGCAAGGTGGAGCTCAAGCGGATCGAGAACAAGATCAGCGCCAGGTGACGTTCGCCAAGCGC : 72
Sorghum_b_ : ATGGGTCGCGGCAAGGTGGAGCTCAAGCGGATCGAGAACAAGATCAGCGGCAGGTGACGTTCGCCAAGCGC : 72
Triticum_a : ATGGGTCGCGGCAAGGTAGTGCTCCAGCGGATCGAGAACAAGATCAGCGCCAGGTGACGTTCGCCAAGCGC : 72
Triticum_m : ATGGGTCGCGGCAAGGTGGTGCTCCAGCGGATCGAGAACAAGATCAGCGCCAGGTGACGTTCGCCAAGCGC : 72
Lolium_p_L : ATGGGTCGCGGCAAGGTGGTGCTCCAGCGGATCGAGAACAAGATCAGCGGCAGGTGACCTTCGCCAAGCGC : 72
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Zea_m_m24 : ATGGGGCGCGGCAAGGTGGTGCTCCAGCGGATCGAGAACAAGATCAGCGGCAGGTGACCTTCGCCAAGCGC : 72
Sorghum_b_ : ATGGGCCGCGGCAAGGTGGTGCTGCAGCGGATCGAGAACAAGATCAGCGGCAGGTGACCTTCGCCAAGCGC : 72
Oryza_s_Os : ATGGGGCGAGGCAAGGTGGTGCTTCAGCGGATCGAGAACAAGATCAGCGGCAGGTGACGTTCGCCAAGCGG : 72
Elaeis_g_A : ATGGGGACGGGAAGGGTGGAGCTCAAGAGGATCGAGAACAAGATAAACAGGCAGGTGACGTTCGCCAAGCGG : 72
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Acorus_a_A : ATGGGGACGGGAAGAGTTGACTTCAAGAGGATAGAGAATTAATATCAACAGACAGGTGACCTTCGCAAAACCA : 72
Amborella_ : ATGGGAACAGGTAGAGTTGAGCTCAAGAGGATAGAGAACAAGATCAACAGGCAGGTGACCTTTGCGAACAGG : 72
Nuphar_a_A : --- : -
Magnolia_g : --AAGCCA : 6
Oryza_s_Os : ATGGGGACGGGTCGGGTGGAGCTCAAGAGGATCGAGAACAAGATCAACCGGCAGGTGACGTTCGCCAAGCGC : 72
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Acorus_a_A : --- : -
Magnolia_p : ---------------------------------GAAAATAAGATTAATCGGCAGGTGACTTTCGCCAAACGC : 39
Amborella_ : --- : -
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Zea_m_ZMM3 : CGGAACGGGCTGCTCAAGAAGGGGTACGAGCTGTCGGTGCTCTGCGACGCCGAGGTCGCCCTTATCATCTTC : 144
Sorghum_b_ : CGGAACGGGCTGCTCAAGAAGGGGTACGAGCTGTCGGTGCTCTGCGACGCCGAGGTCGGCCTCATCATCTTC : 144
Triticum_a : CGCAACGGGCTGCTCAAGAAGGGGTACGAGCTGTCGGTGCTCTGCGACGCCGAGGTCGGCGTCATCATCTTC : 144
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Triticum_a : CGCAACGGCTGCTCAAGAAGGGGTACGAGCTGTCGGTGCTCTGCGACGCCGAGGTCGGCTCATCATCTTC : 144
Lolium_p_L : CGGAACGGCGTCGTCAAGAAGGGGTACGAGCTGTCGGTGCTCTGTGACGCCGAGGTCGGCCTCATCATCTTC : 144
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Zea_m_ZMM1 : CGCAACGGCACTGCTCAAGAAGGGGTACGAGCTGTCGCTGTTGTGCGACGCGGAGGTCGGCGTCATCATCTTC : 144
Sorghum_b_ : CGGAACGGGCTGCTCAAGAAGGGGTACGAGCTGTCGCTGCTGTGCGACGCCGAGGTCGGCGTCATCATCTTC : 144
Triticum_a : CGCAACGGCCTGCTCAAGAAGGGTTACGAGCTCTCCCTCTTCTGCGACGCCGAGGTCGGCGTCGTCCTCTTC : 144
Triticum_m : CGCAACGGCCTGCTCAAGAAGGGCTACGAGCTCTCCCTCCTCTGCGACGCCGAGGTCGGCGTCGTCCTCTTC : 144
Lolium_p_L : CGCAACGGCCTGCTCAAGAAGGGCTACGAGCTCTCCATCCTCTGCGACGCCGAGGTCGGCGTCGTCCTCTTC : 144
Zea_m_m31 : CGGAACGGCCTGCTCAAGAAGGGGTACGAGCTCTCCATCCTCTGCGACGCCGAGGTCGGCGTCGTCCTCTTC : 144
Zea_m_m24 : CGGAACGGCCTGCTCAAGAAGGGGTACGAGCTCTCCGTCCTCTGCGACGCCGAGGTCGGCGTCGTCCTCTTC : 144
Sorghum_b_ : CGGAACGGCCTGCTCAAGAAGGGCTACGAGCTCTCCATCCTCTGCGACGCCGAGGTCGGCGTCGTCCTCTTC : 144
Oryza_s_Os : CGGAACGGCCTGCTCAAGAAGGGCTACGAGCTCTCCATCCTCTGCGACGCCGAGGTCGGCCTCGTCCTCTTC : 144
Elaeis_g_A : CGGAACGGGTTGCTGAAGAAGGGCTTCGAGCTCTCCGTCCTCTGCGACGCCGAGGTCGGCCTCATCATTTC : 144
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Amborella_ : ACGAATGGTCTTTTGAAGAAGGGTTATGAACTCTCTGTTCTCTGTGATGCTGAGGTTGGCCTAATCATTTTC : 144
Nuphar_a_A : --- : -
Magnolia_g : ACGAACGGCATTGCTGAAGAAAGCATACGAGCTTTCAGTTCTCTGCGATGCTGAGGTCGCTCTTATCATCTTC : 78
Oryza_s_Os : ACGAATGGCCTGCTCAAGAAGGGGTACGAGCTCTCCGTCCTCTGCGACGCCGAGGTCGGCCTCATCATCTTC : 144
Oryza_s_Os : ACGAATGGCGTGCTCAAGAAGGGGTACGAGCTCTCCGTGCTCTGCGACGCCGAGGTCGGCCTCATCATCTTC : 144
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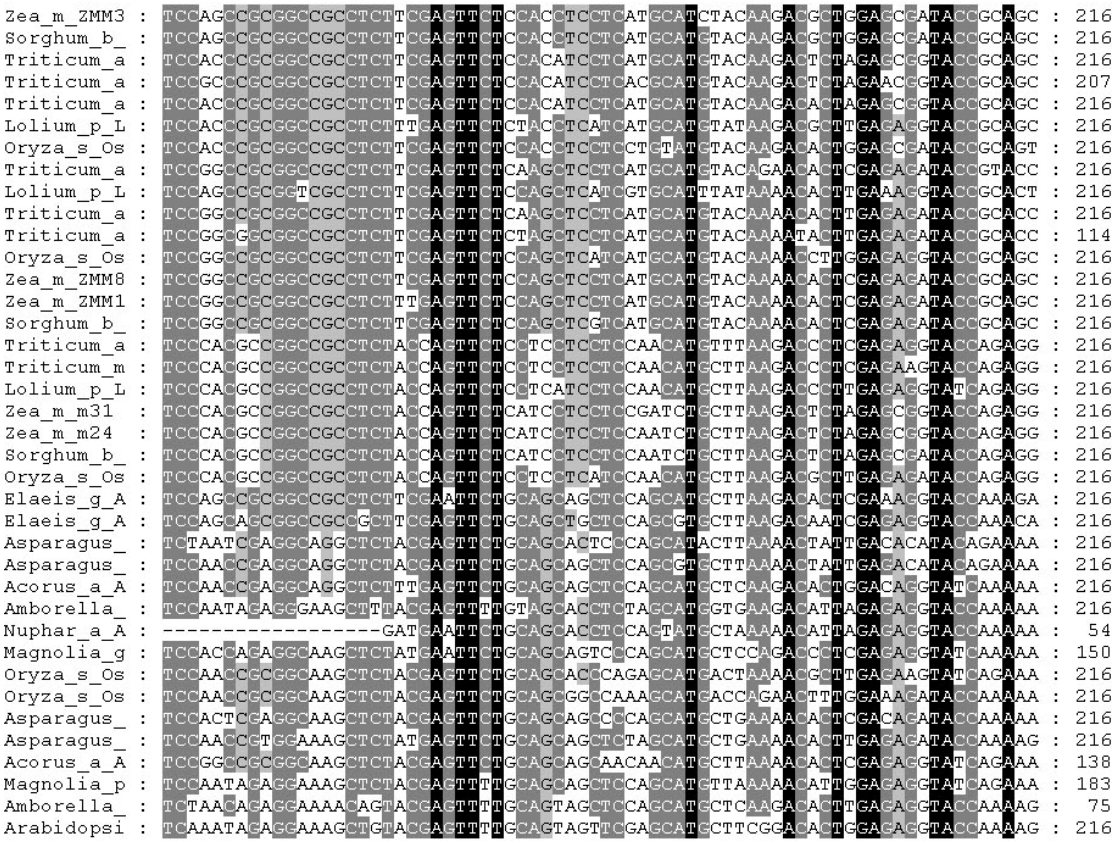
Acorus_a_A : ------GGCTTGTTGAAGAAGGGTTACGAGCTCTCCGTCCTCTGCGACGCTGAGGTCGGCCTCATCATCTTC : 66
Magnolia_p : CGAAACGGGCTTTTGAAGAAAGGCTACGAACTCTCAGTTCTCTGCGATGCTGAGGTGGCTCTCATCATCTTC : 111
Amborella_ : --TTC :   3
Arabidopsi : ACGAATGGTCTTTTGAAGAAAGCATACGAGCTTTCAGTTCTATGTGATGCAGAAGTTGCTCTCATCATCTTC : 144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Triticum_a : TCCACCCCCGGCCGCCTCTTCGAGTTCTCCACATCCTCATGCATCTACAAGAGACTCTAGAGCCGTACCGGCAGC : 216
Triticum_a : TCCGCCCCCGGCCGCCTCTTCGAGTTCTCCACATCCTCACGCATCTACAAGAGCTCTAGAACCGTACCGGCAGC : 207
Triticum_a : TCCACCCCCGGCCGCCTCTTCGAGTTCTCCACATCCTCATGCATCTACAAGAGACTAGAGCCGTACCGGCAGC : 216
Lolium_p_L : TCCACCCCCGGCCGCCTCTTTGAGTTCTCTACCTCATCATGCATCTATAAGAGCGTTGAGACGTACCGGCAGC : 216
Oryza_s_Os : TCCACCCCCGGCCGCCTCTTCGAGTTCTCCACCTCCTCCTGTATCTACAAGAGACTGGAGCCGTACCGGCAGT : 216
Triticum_a : TCCGGCCCCGGCCGCCTCTTCGAGTTCTCAAGCTCCTCATGCATCTACAGAAGACTCGAGACATACCGTACC : 216
Lolium_p_L : TCCAGCCCCGGTCGCCTCTTCGAGTTCTCCAGCTCATCGTGCATTTATAAAACACTTGAAAGGTACCGGCACT : 216
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Zea_m_ZMM1 : TCCGGCCCCGGCCGCCTCTTTGAGTTCTCCAGCTCCTCATGCATCTACAAAACACTCGAGACATACCGGCAGC : 216
Sorghum_b_ : TCCGGCCCCGGCCGCCTCTTCGAGTTCTCCAGCTCGTCATGCATCTACAAAACACTCGAGACATACCGGCAGC : 216
Triticum_a : TCCCAGCCCGGCCGCCTCTACCAGTTCTCCTCCTCCTGCAACATCTTTAAGACCCTCGAGAGGTACCAGAGG : 216
Triticum_m : TCCCAGCCCGGCCGCCTCTACCAGTTCTCCTCCTCCTGCAACATCTTAAGACCCTCGAGAAGTACCAGAGG : 216
Lolium_p_L : TCCCAGCCCGGCCGCCTCTACCAGTTCTCCTCATCCTGCAACATCTTAAGACCTTGACAGGTATCAGAGG : 216
Zea_m_m31 : TCCCAGCCCGGCCGCCTCTACCAGTTCTCATCCTCCTGCGATCTGCTTAAGACTCTAGAGCCGTACCAGAGG : 216
Zea_m_m24 : TCCCAGCCCGGCCGCCTCTACCAGTTCTCATCCTCCTGCAATCTGCTTAAGACTCTAGAGCCGTACCAGAGG : 216
Sorghum_b_ : TCCCAGCCCGGCCGCCTCTACCAGTTCTCATCCTCCTGCAATCTGCTTAAGACTCTAGAGCCGTACCAGAGG : 216
Oryza_s_Os : TCCCAGCCCGGCCGCCTCTACCAGTTCTCTCCTCATCCAACATCTTAAGACGTTGACACATACCAGAGG : 216
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Elaeis_g_A : TCCAGCACCGGCCGCCGCTTCGAGTTCTGCAGCTGCTCCAGCGTCTTAAGACAATCGACACGTACCAAACA : 216
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Acorus_a_A : TCCAACCCCAGGCAGGCTCTTTGAGTTCTGCAGCAGCTCCAGCATCTCAAGACACTGGACACGTATCAAAAA : 216
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Nuphar_a_A : ----------------GATGAATTCTGCAGCACCTCCAGTATCCTAAAAACATTAGACACGTACCAAAAA : 54
Magnolia_g : TCCACCACAGGCAAGCTCTATGAATTCTGCAGCAGTCCCAGCATCTCCCAGACCCTCGAGACGTATCAAAAA : 150
Oryza_s_Os : TCCAACCCCGGCAAGCTCTACGAGTTCTGCAGCACCAGAGCATCACTAAAACGCTTGAGAAGTATCAGAAA : 216
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Acorus_a_A : TCCGGCCCCGGCAAGCTCTACGAGTTCTGCAGCAGCAACAACATCCTTAAAACACTCGACACGTATCAGAAA : 138
Magnolia_p : TCCAATACAGGAAAGCTCTACGAGTTTTGCAGCAGCTCCAGCATCTTAAAAACATTGGACACGTATCAGAAA : 183
Amborella_ : TCTAACACAGGAAAACAGTACGAGTTTTGCAGTAGCTCCAGCATCTCAAGACACTTGACACGTACCAAAAG : 75
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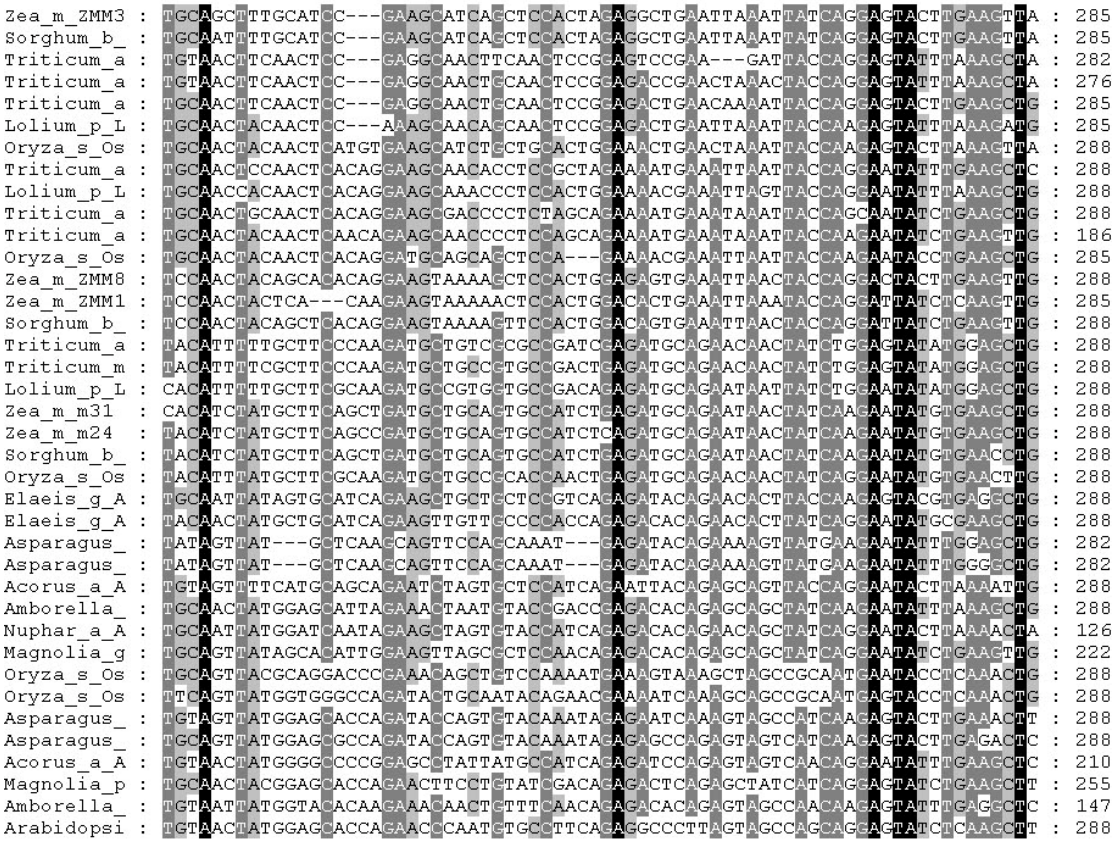
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Sorghum_b_ : TGCAATTTTGCATCC---GAAGCATCAGCTCCACTAGAGGCTGAATTAAATTATCAGGAGTACTTGAAGTTA : 285
Triticum_a : TGTAACTTCAACTCC---GAGGCAACTTCAACTCCGGAGTCCGAA---GATTACCAGGAGTATTTAAAGCTA : 282
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Triticum_a : TGCAACTTCAACTCC---GAGGCAACTGCAACTCCGGAGACTGAACAAAATACCAGGAGTACTTGAAGCTG : 285
Lolium_p_L : TGCAACTACAACTCC---AAAGCAACAGCAACTCCGGAGACTGAATTAAATTACCAAGAGTATTTAAACATG : 285
Oryza_s_Os : TGCAACTACAACTCATGTGAAGCATCTGCTGCACTGGAAACTGAACTAAATTACCAAGAGTACTTAAAGTTA : 288
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Triticum_a : TGCAACTACAACTCAACAGAAGCAACCCCTCCAGCAGAAAATGAATAAATTACCAAGAATATCTGAACTTG : 186
Oryza_s_Os : TGCAACTACAACTCACAGGATGCAGCAGCTCCA---GAAAACGAAATTAATTACCAAGAATACCTGAAGCTG : 285
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Zea_m_ZMM1 : TCCAACTACTCA---CAAGAAGTAAAAACTCCACTGGACACTGAATTAAATACCAGGATTATCTCAAGTTG : 285
Sorghum_b_ : TCCAACTACAGCTCACAGGAAGTAAAAGTTCCACTGGAGAGTGAATTAACTACCAGGATTATCTGAAGTTG : 288
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Triticum_m : TACATTTTCGCTTCCCAAGATGCTGCCGTGCCGACTGACATGCAGAACAACTATCTGGAGTATATGGACCTG : 288
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Zea_m_m31 : CACATCTATGCTTCAGCTGATGCTGCAGTGCCATCTGACATGCAGAATAACTATCAAGAATATGTGAAGCTG : 288
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Oryza_s_Os : TACATTTATGCTTCGCAAGATGCTGCCCCACCAACTGAGATGCAGAACAACTATCAGGAATATGTGAACTTG : 288
Elaeis_g_A : TGCAATTATAGTGCATCAGAAGCTGCTGCTCCGGTCAGAGATACAGAACACTTACCAAGAGTACGTGAGCTG : 288
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Acorus_a_A : TGTAGTTTTCATGCAGCAGAATCTAGTGCTCCATCAGAATTACAGAGCAGTTACCAGGAATATCTTAAAATTG : 288
Amborella_ : TGCAACTATGGAGCATTAGAAACTAATGTACGACCGAGACACAGAGCAGCTATCAAGAATATTTAAAGCTG : 288
Nuphar_a_A : TGCAATTATGGATCAATAGAAGCTAGTGTACCATCAGAGACACAGAACAGCTATCAGGAATACTTAAAACTA : 126
Magnolia_g : TGCAGTTATAGCACATTGGAAGTTAGCGCTCCAACAGAGACACAGAGCAGCTATCAGGAATATCTGAAGTTG : 222
Oryza_s_Os : TGCAGTTACGCAGGACCCGAAACAGCTGTCCAAAATGAAAGTAAAGCTAGCCGCAATGAGTACCTCAAACTG : 288
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Asparagus_ : TGCAGTTATGGAGCGCCAGATACCAGTGTACAAATAGAGAGCCAGAGTAGTCATCAAGAGTACTTGAGACTC : 288
Acorus_a_A : TGTAACTATGGGGCCCCGAGCCTATTATGCCATCAGAGATCCAGAGTAGTCAACAGGAATATTTGAAGCTC : 210
Magnolia_p : TGCAACTACGGAGCACCAGAACTTCCTGTATCGACAGAGACTCAGAGCTATCATCAGGAGTATCTGAAGCTT : 255
Amborella_ : TGTAATTATGGTACACAAGAAACAACTGTTTCAACAGAGACACAGAGTAGCCAACAAGAGTATTTGAGCGTC : 147
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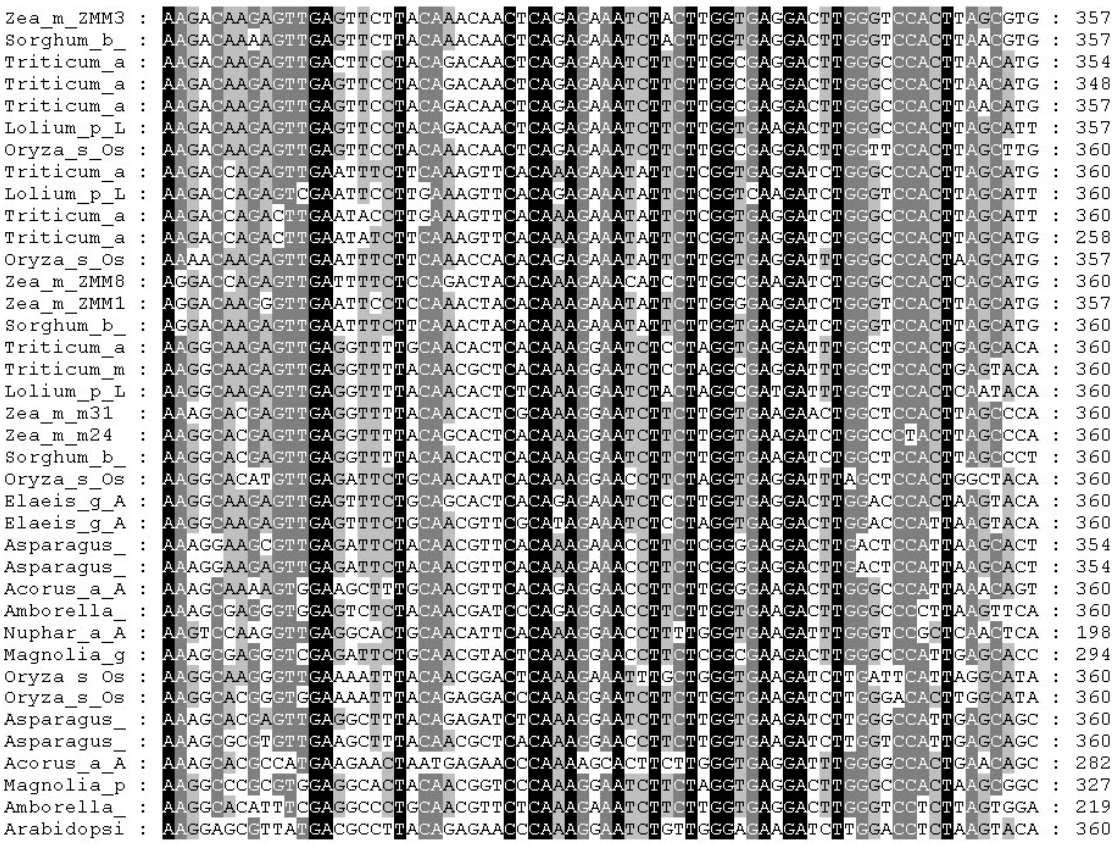
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Sorghum_b_ : AAGACAAAAGTTGAGTTCTTACAAACAACTCAGAGAAATCTACTTGGTGAGGACTTGGGTCCACTTAACGTG : 357
Triticum_a : AAGACAACAGTTGACTTCCTACAGACAACTCAGAGAAATCTTCTTGGCGAGGACTTGGCCCACTTAACATG : 354
Triticum_a : AAGACAACAGTTGAGTTCCTACAGACAACTCAGAGAAATCTTCTTGGCGAGGACTTGGGCCCACTTAACATG : 348
Triticum_a : AAGACAACAGTTGAGTTCCTACAGACAACTCAGAGAAATCTTCTTGGCGAGGACTTGGGCCCACTTAACATG : 357
Lolium_p_L : AAGACAACAGTTGAGTTCCTACAGACAACTCAGAGAAATCTTCTTGGTGAAGACTTGGGCCCACTTAGCATT : 357
Oryza_s_Os : AAGACAACAGTTGAGTTCCTACAAACAACTCAGAGAAATCTTCTTGGCGAGGACTTGGTTCCACTTAGCTTG : 360
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Lolium_p_L : AAGACCACAGTCGAATTCCTTGAAAGTTCACAGAGAAATATTCTCGGTCAAGATCTGGGTCCACTTAGCATT : 360
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Lolium_p_L : AAGGCAACAGTTGAGGTTTTACAACACTCTCAAAGGAATCTACTAGGCGATGATTTGGCTCCACTCAATACA : 360
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Acorus_a_A : AAAGCAAAAGTGGAAGCTTTGCAACGTTCACAGAGGAACCTTCTTGGGCGAAGACTTGGGCCCATTAAACAGT : 360
Amborella_ : AAAGCGACGGTGGAGTCTCTACAACGATCCCAGAGGAACCTTCTTGGTGAAGACTTGGGCCCCTTAAGTTCA : 360
Nuphar_a_A : AAGTCCAAGGTTGAGGCACTGCAACATTCACAAAGGAACCTTTTGGGTGAAGATTTGGGTCCGCTCAACTCA : 198
Magnolia_g : AAAGCGACGGTCGAGATTCTGCAACGTACTCAAAGGAACCTTCTCGGCGAAGACTTGGGCCCATTGAGCACC : 294
Oryza_s_Os : AAGGCAACGGTTGAAAATTTACAACGGACTCAAAGAAATTTGCTGGGTGAAGATCTTGATTCATTAGGCATA : 360
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Acorus_a_A : AAAGCACCCCATGAAGAACTAATGAGAACCCAAAAGCACTTCTTGGGTGAGGATTTGGGCCACTGAACAGC : 282
Magnolia_p : AAGGCCCCGTGGAGGCACTACAACGGTCCCAAAGGAATCTTCTAGGTGAGGACTTGGGCCCACTAAGCGGC : 327
Amborella_ : AAGGCACATTTCGAGGCCCTGCAACGTTCTCAAAGAAATCTTCTTGGTGAGGACTTGGGTCCTCTTAGTGGA : 219
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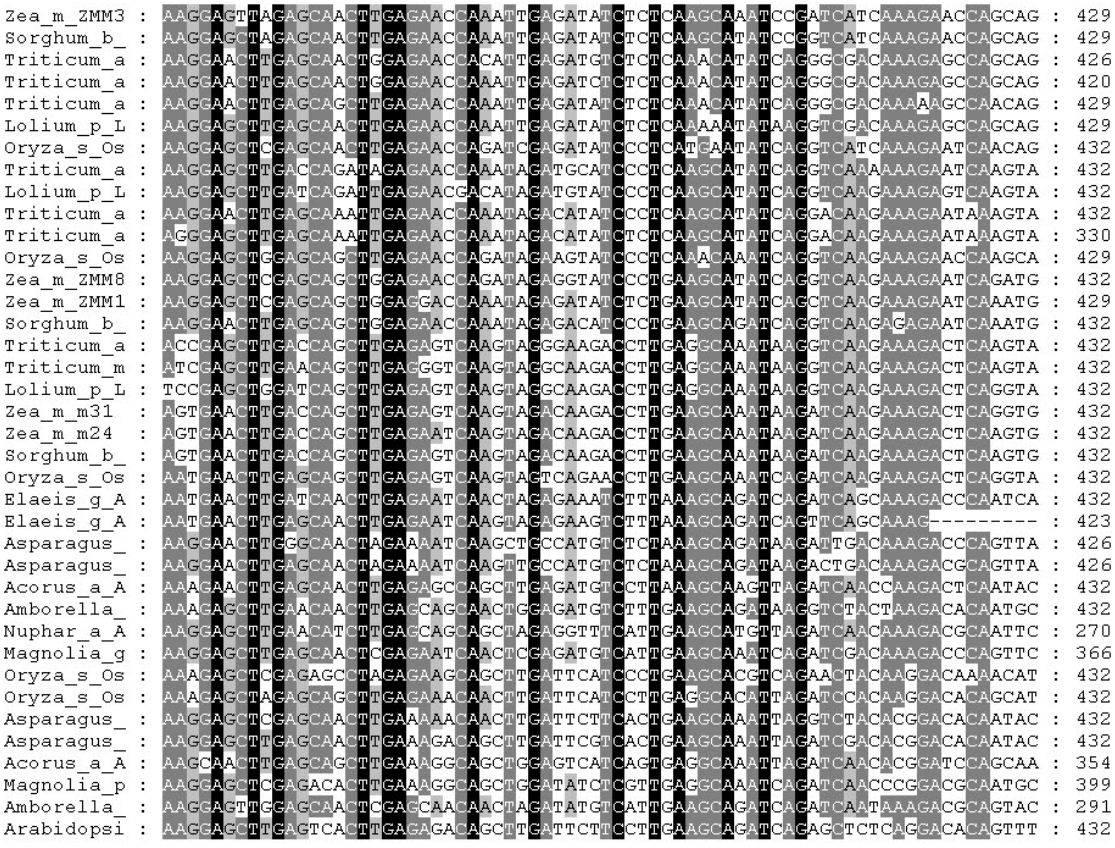
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Lolium_p_L : AAGGAGCTTGAGCAACTTGAGAACCAAATTGAGATATCTCTCAAAAATATAAGGTCGACAAAGAGCCAGCAG : 429
Oryza_s_Os : AAGGAGCTCGAGCAACTTGAGAACCAGATCGAGATATCCCTCATCAATATCAGGTCATCAAAGAATCAACAG : 432
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Zea_m_ZMM1 : AAGGAGCTCGAGCAGCTGGAGGACCAAATAGAGATATCTCTGAAGCATATCAGCTCAAGAAAGAATCAAATG : 429
Sorghum_b_ : AAGGAACTTGAGCAGCTGGAGAACCAAATAGAGACATCCCTGAAGCAGATCAGGTCAAGAGAGAATCAAATG : 432
Triticum_a : ACCGAGCTTGACCAGCTTGAGAGTCAAGTAGGGAAGACCTTGAGGCAAATAAGGTCAAGAAAGACTCAAGTA : 432
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Lolium_p_L : TCCGAGCTGGATCAGCTTGAGAGTCAAGTAGCAAGACCTTGAGGCAAATAAGGTCAAGAAAGACTCAGGTA : 432
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Zea_m_m24 : AGTGAACTTGACCAGCTTGAGAATCAAGTAGACAAGACCTTGAAGCAAATAAGATCAAGAAAGACTCAAGTG : 432
Sorghum_b_ : AGTGAACTTGACCAGCTTGAGAGTCAAGTAGACAAGACCTTGAAGCAAATAAGATCAAGAAAGACTCAAGTG : 432
Oryza_s_Os : AATGAACTTGAGCAGCTTGAGAGTCAAGTAGTCAGAACCTTGAAGCAAATCAGATCAAGAAAGACTCAGGTA : 432
Elaeis_g_A : AATGAACTTGATCAACTTGAGAATCAAGTAGAGAAGTCTTTAAAGCAGATCAGTTCAGCAAAG--------- : 423
Asparagus_ : AAGGAACTTGGGCAACTAGAAAATCAAGCTGCCATGTCTCTAAAGCAGATAAGATTGACAAAGACCCAGTTA : 426
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Magnolia_g : AAGGAGCTTGAGCAACTCGAGAATCAACTCGAGATGTCATTGAAGCAAATCAGATCGACAAAGACCCAGTTC : 366
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Amborella_ : AAGGAGTTCGAGCAACTCGAGCAACAACTAGATATGTCATTGAAGGAGATCAGATCAATAAAGACGCAGTAC : 291
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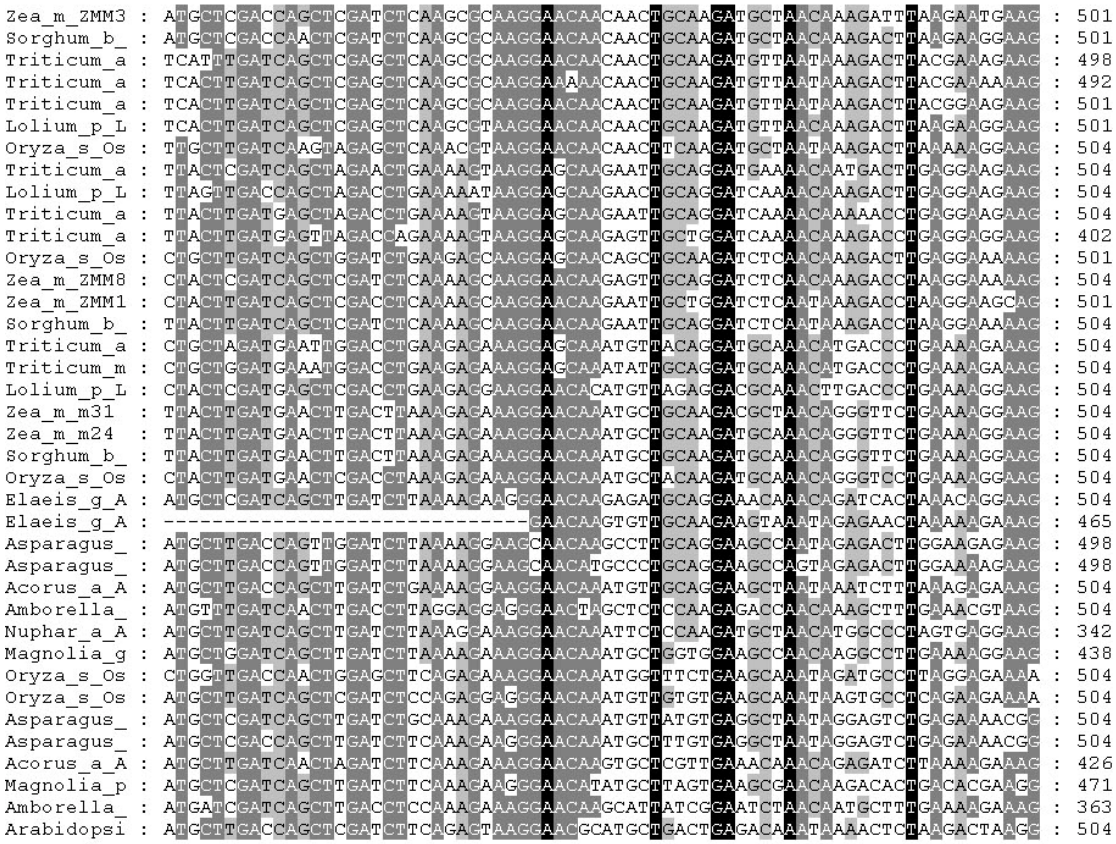
Zea_m_ZMM3 : ATGCTCGACCAGCTCGATCTCAAGCGCAAGGAACAACAACTGCAAGATGCTAACAAAGATTTAAGAATGAAG : 501
Sorghum_b_ : ATGCTCGACCAACTCGATCTCAAGCGCAAGGAACAACAACTGCAAGATGCTAACAAAGACTTAAGAAGGAAG : 501
Triticum_a : TCATTTGATCAGCTCGAGCTCAAGCGCAAGGAACAACAACTGCAAGATGTTAATAAAGACTTACGAAAGAAG : 498
Triticum_a : TCACTTGATCAGCTCGAGCTCAAGCGCAAGGAAAACAACTGCAAGATGTTAATAAAGACTTACGAAAAAAG : 492
Triticum_a : TCACTTGATCAGCTCGAGCTCAAGCGCAAGGAACAACAACTGCAAGATGTTAATAAAGACTTACGGAAGAAG : 501
Lolium_p_L : TCACTTGATCAGCTCGAGCTCAAGCGTAAGGAACAACAACTGCAAGATGTTAACAAAGACTTAAGAAGGAAG : 501
Oryza_s_Os : TTGCTTGATCAAGTAGAGCTCAAACGTAAGGAACAACAACTTCAAGATGCTAATAAAGACTTAAAAAGGAAG : 504
Triticum_a : TTACTCGATCAGCTAGAACTGAAAAGTAAGGAGCAAGAATTGCAGGATGAAAACAATGACTTGAGGAAGAAG : 504
Lolium_p_L : TTAGTTGATCAGCTCAGACCTGAAAAATAAGGAGCAAGAACTGCAGGATCAAAACAAAGACTTGAGGAAGAAG : 504
Triticum_a : TTACTTGATGAGCTAGACCTGAAAAGTAAGGAGCAAGAATTGCAGGATCAAAACAAAAACCTGAGGAAGAAG : 504
Triticum_a : TTACTTGATGAGTTAGACCAGAAAAGTAAGGAGCAAGAGTTGCTGGATCAAAACAAAGACCTGAGGAGGAAG : 402
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Zea_m_ZMM8 : CTACTCGATCAGCTCGATCTCAAAAGCAAGGAACAAGAGTTGCAGGATCTCAACAAAGACCTAAGGAAAAAG : 504
Zea_m_ZMM1 : CTACTTGATCAGCTCGACCTCAAAAGCAAGGAACAAGAATTGCTGGATCTCAATAAAGACCTAAGGAAGCAG : 501
Sorghum_b_ : TTACTTGATCAGCTCGATCTCAAAAGCAAGGAACAAGAATTGCAGGATCTCAATAAAGACCTAAGGAAAAAG : 504
Triticum_a : CTGCTAGATGAATTGGACCTGAAGAGAAAGGAGCAAATGTTACAGGATGCAAACATGACCCTGAAAAGAAAG : 504
Triticum_m : CTGCTGGATGAAATGGACCTGAAGAGAAAGGAGCAAATATTGCAGGATGCAAACATGACCCTGAAAAGAAAG : 504
Lolium_p_L : CTACTCGATGAGCTCGACCTGAAGAGGAAGGAACACATGTTAGAGGACGCAAACTTGACCCTGAAAAGGAAG : 504
Zea_m_m31 : TTACTTGATGAACTTGACTTAAAGAGAAAGGAACAAATGCTGCAAGACGCTAACAGGGTTCTGAAAAGGAAG : 504
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Sorghum_b_ : TTACTTGATGAACTTGACTTAAAGAGAAAGGAACAAATGCTGCAAGATGCAAACAGGGTTCTGAAAAGGAAG : 504
Oryza_s_Os : CTACTTGATGAACTCGACCTAAAGAGAAAGGAACAAATGCTACAAGATGCAAACAGGGTCCTGAAAAGGAAG : 504
Elaeis_g_A : ATGCTCGATCAGCTTGATCTTAAAAGAAGGGAACAAGAGATGCAGGAAACAAACAGATCAGTAAACAGGAAG : 504
Elaeis_g_A : ----------GAACAAGTGTTGCAAGAAGTAATAGAGAACTAAAAAGAAAG : 465
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Asparagus_ : ATGCTTGACCAGTTGGATCTTAAAGGAACGAACATGCCCTGCAGGAAGCCAGTAGAGACTTGGAAAAGAAG : 498
Acorus_a_A : ATGCTTGACCAGCTTGATCTGAAAGGAAGGAACAAATGTTGCAGGAAGCTAATAAATCTTTAAAGAGAAAG : 504
Amborella_ : ATGTTTGATCAACTTGACCTTAGGAGGAGGGAACTAGCTCTCCAAGAGACCAACAAAGCTTTGAAACGTAAG : 504
Nuphar_a_A : ATGCTTGATCAGCTTGATCTTAAAGGAAAGGAACAAATTCTCCAAGATGCTAACATGGCCCTAGTGAGGAAG : 342
Magnolia_g : ATGCTGGATCAGCTTGATCTTAAAGAAAGGAACAAATGCTGGTGGAAGCCAACAAGGCCTTGAAAAGGAAG : 438
Oryza_s_Os : CTGGTTGACCAACTGGAGCTTCAGAGAAAGGAACAAATGGTTTCTGAAGCAAATAGATGCCTTAGGAGAAAA : 504
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Acorus_a_A : ATGCTTGATCAACTAGATCTTCAAAGAAAGGAACAAGTGCTCGTTGAAACAAACAGAGATCTTAAAAGAAAG : 426
Magnolia_p : ATGCTCGATCAGCTTGATCTTCAAAGAAGGGAACATATGCTTAGTGAAGCGAACAAGACACTGACACGAAGG : 471
Amborella_ : ATGATCGATCAGCTTGACCTCCAAAGAAAGGAACAAGCATTATCGGAATCTAACAATGCTTTGAAAAGAAAG : 363
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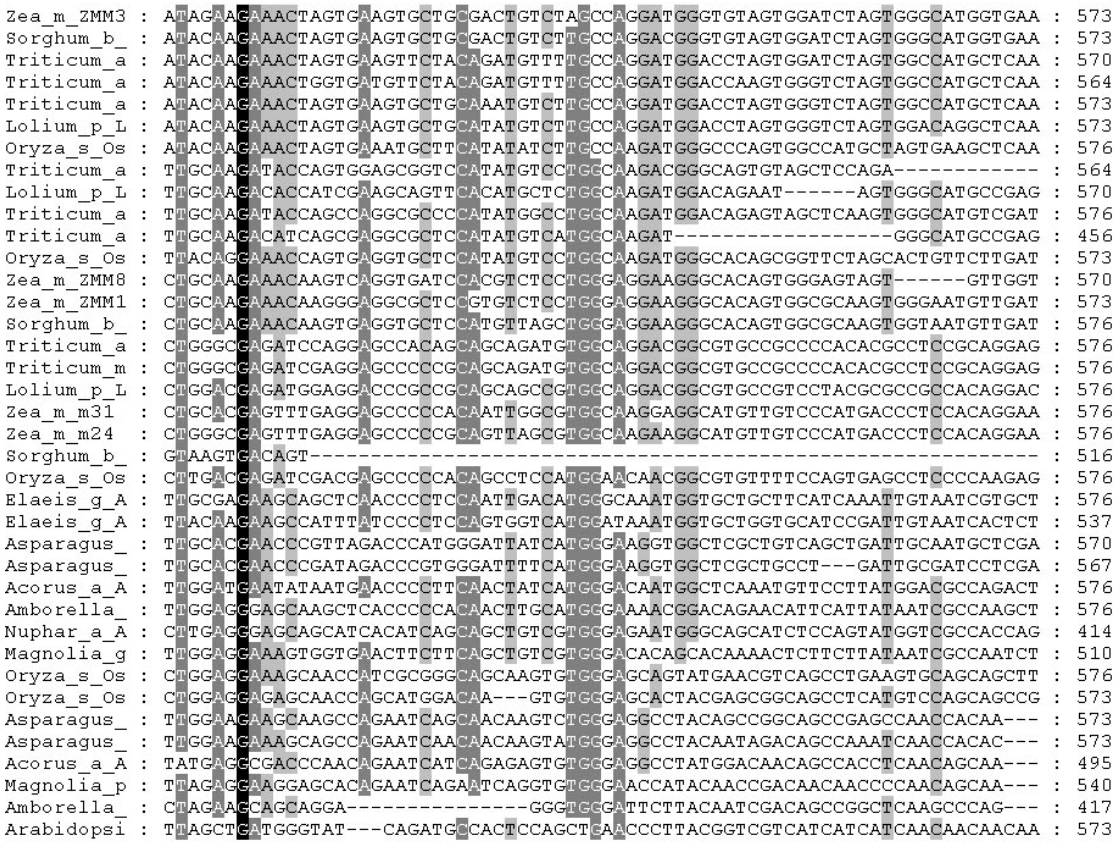
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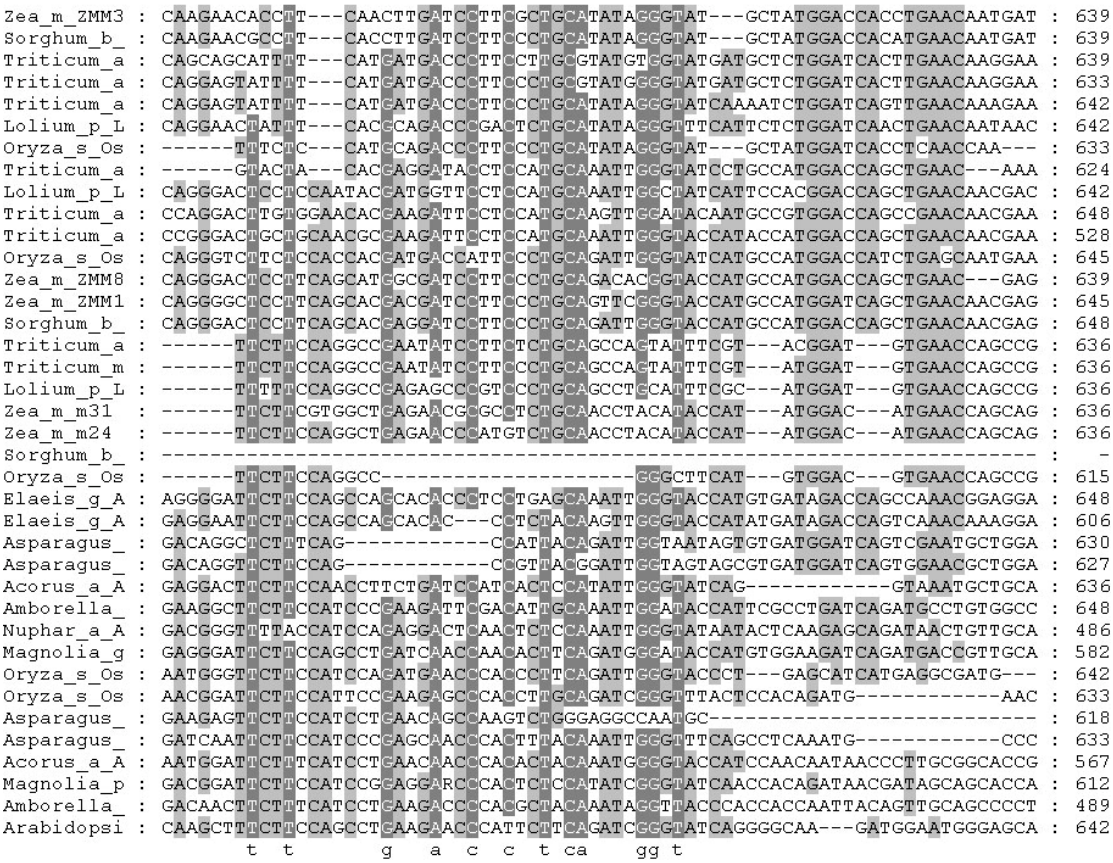
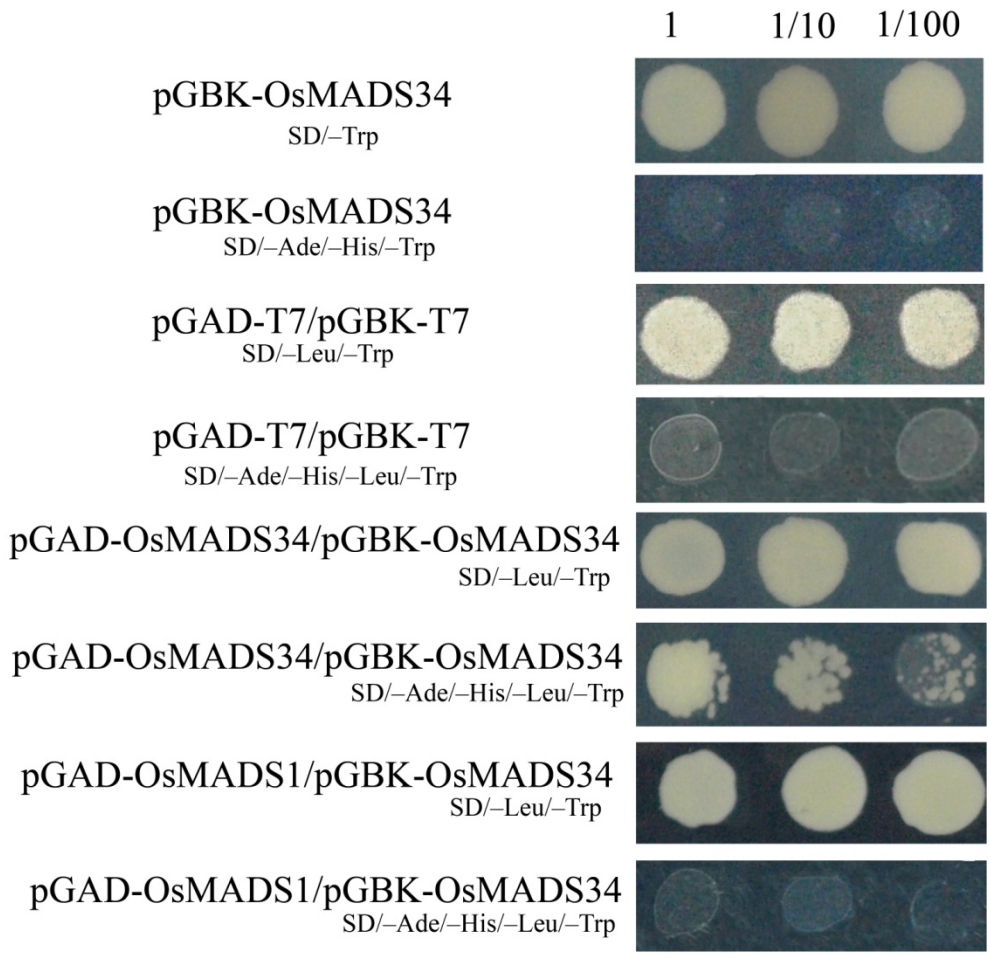
Sorghum_b_ : ATACAAGAAACTAGTGAAGTGCTGCGACTGTCTTGCCAGGACGGGTGTAGTGGATCTAGTGGGCATGGTGAA : 573
Triticum_a : ATACAAGAAACTAGTGAAGTTCTACAGATGTTTTGCCAGGATGGACCTAGTGGATCTAGTGGCCATGCTCAA : 570
Triticum_a : ATACAAGAAACTGGTGATGTTCTACAGATGTTTTGCCAGGATGGACCAAGTGGGTCTAGTGGCCATGCTCAA : 564
Triticum_a : ATACAAGAAACTAGTGAAGTGCTGCAAATGTCTTGCCAGGATGGACCTAGTGGGTCTAGTGGCCATGCTCAA : 573
Lolium_p_L : ATACAAGAAACTAGTGAAGTGCTGCATATGTCTTGCCAGGATGGACCTAGTGGGTCTAGTGGACAGGCTCAA : 573
Oryza_s_Os : ATACAAGAAACTAGTGAAATGCTTCATATATCTTGCCAAGATGGGCCCAGTGGCCATGCTAGTGAAGCTCAA : 576
Triticum_a : TTGCAAGATACCAGTGGAGCGGTCCATATGTCCTGGCAAGACGGGCAGTGTAGCTCCAGA---------- : 564
Lolium_p_L : TTGCAAGACACCATCGAAGCAGTTCACATGCTCTGGCAAGATGGACAGAAT------AGTGGGCATGCCGAG : 570
Triticum_a : TTGCAAGATACCAGCCAGGCGCCCCATATGGCCTGGCAAGATGGACAGAGTAGCTCAAGTGGGCATGTCGAT : 576
Triticum_a : TTGCAAGACATCAGCGAGGCGCTCCATATGTCATGGCAAGAT----------GGGCATGCCGAG : 456
Oryza_s_Os : TTACAGGAAACCAGTGAGGTGCTCCATATGTCCTGGCAAGATGGGCACAGCGGTTCTAGCACTGTTCTTGAT : 573
Zea_m_ZMM8 : CTGCAAGAAACAAGTCAGGTGATCCACGTCTCCTGGGAGGAAGGGCACAGTGGGAGTAGT------GTTGGT : 570
Zea_m_ZMM1 : CTGCAAGAAACAAGGGAGGCGCTCCGTGTCTCCTGGGAGGAAGGGCACAGTGGCGCAAGTGGGAATGTTGAT : 573
Sorghum_b_ : CTGCAAGAAACAAGTGAGGTGCTCCATGTTAGCTGGGAGGAAGGGCACAGTGGCGCAAGTGGTAATGTTGAT : 576
Triticum_a : CTGGGCGAGATCCAGGAGCCACAGCAGCAGATGTGGCCAGGACGGCGTGCCGCCCCACACGCCTCCGCAGGAG : 576
Triticum_m : CTGGGCGAGATCGAGGAGCCCCCGCAGCAGATGTGGCCAGGACGGCGTGCCGCCCCACACGCCTCCGCAGGAG : 576
Lolium_p_L : CTGGACGAGATGGAGGACCCGCCGCAGCAGCCGTGGCAGGACGGCGTGCCGTCCTACGCGCCGCCACAGGAC : 576
Zea_m_m31 : CTGCACGAGTTTGAGGAGCCCCCACAATTGGCGTGGCAAGGAGGCATGTTGTCCCATGACCCTCCACAGGAA : 576
Zea_m_m24 : CTGGGCGAGTTTGAGGAGCCCCCGCAGTTAGCGTGGCAAGAAGGCATGTTGTCCCATGACCCTCCACAGGAA : 576
Sorghum_b_ : GTAAGTGACAGT-- : 516
Oryza_s_Os : CTTGACGAGATCGACGAGCCCCCACAGCCTCCATGGAACAACGGCGTGTTTTCCAGTGAGCCTCCCCAAGAG : 576
Elaeis_g_A : TTGCGAGAAGCAGCTCAACCCCTCCAATTGACATGGGCAAATGGTGCTGCTTCATCAAATTGTAATCGTGCT : 576
Elaeis_g_A : TTACAAGAAGCCATTTATCCCCTCCAGTGGTCATGGATAAATGGTGCTGGTGCATCCGATTGTAATCACTCT : 537
Asparagus_ : TTGCACGAACCCGTTAGACCCATGGGATTATCATGGGAAGGTGGCTCGCTGTCAGCTGATTGCAATGCTCGA : 570
Asparagus_ : TTGCACGAACCCGATAGACCCGTGGGATTTTCATGGGAAGGTGGCTCGCTGCCT---GATTGCGATCCTCGA : 567
Acorus_a_A : TTGGATGAATATAATGACCCCTTCAACTATCATGGGACAATGGCTCAAATGTTCCTTATGGACGCCAGACT : 576
Amborella_ : TTGGAGGGAGCAAGCTCACCCCCACAACTTGCATGGGAAAACGGACAGAACATTCATTATAATCGCCAAGCT : 576
Nuphar_a_A : CTTGAGGGAGCAGCATCACATCAGCAGCTGTCGTGGGAGAATGGGCAGCATCTCCAGTATGGTCGCCACCAG : 414
Magnolia_g : TTGGAGGAAAGTGGTGAACTTCTTCAGCTGTCGTGGGACACAGCACAAAACTCTTCTTATAATCGCCAATCT : 510
Oryza_s_Os : CTGGAGGAAAGCAACCATCGCGGGCAGCAAGTGTGGGAGCAGTATGAACGTCAGCCTGAAGTGCAGCAGCTT : 576
Oryza_s_Os : CTGGAGGAGAGCAACCAGCATGGACAA---GTGTGGGAGCACTACGAGCGGCAGCCTCATGTCCAGCAGCCG : 573
Asparagus_ : TTGGAAGAAGCAAGCCAGAATCAGCAACAAGTCTGGGAGGCCTACAGCCGGCAGCCGAGCCAACCACAA--- : 573
Asparagus_ : TTGGAAGAAAGCAGCCAGAATCAACAACAAGTATGGGAGGCCTACAATAGACAGCCAAATCAACCACAC--- : 573
Acorus_a_A : TATGAGGCGACCCAACAGAATCATCAGAGAGTGTGGGAGGCCTATGGACAACAGCCACCTCAACAGCAA--- : 495
Magnolia_p : TTAGAGGAAGGAGCACAGAATCAGAATCAGGTGTGGGAACCATACAACCGACAACAACCCCAACAGCAA--- : 540
Amborella_ : CTAGAAGCAGCAGGA----------GGGTGGGATTCTTACAATCGACAGCCGGCTCAAGCCCAG--- : 417
Arabidopsi : TTAGCTGATGGGTAT---CAGATGCCACTCCAGCTGAACCCTTACGGTCGTCATCATCATCAACAACAACAA : 573



Supplemental Figure 5. Sequence aligment of the *OsMADS34* and its homologs.

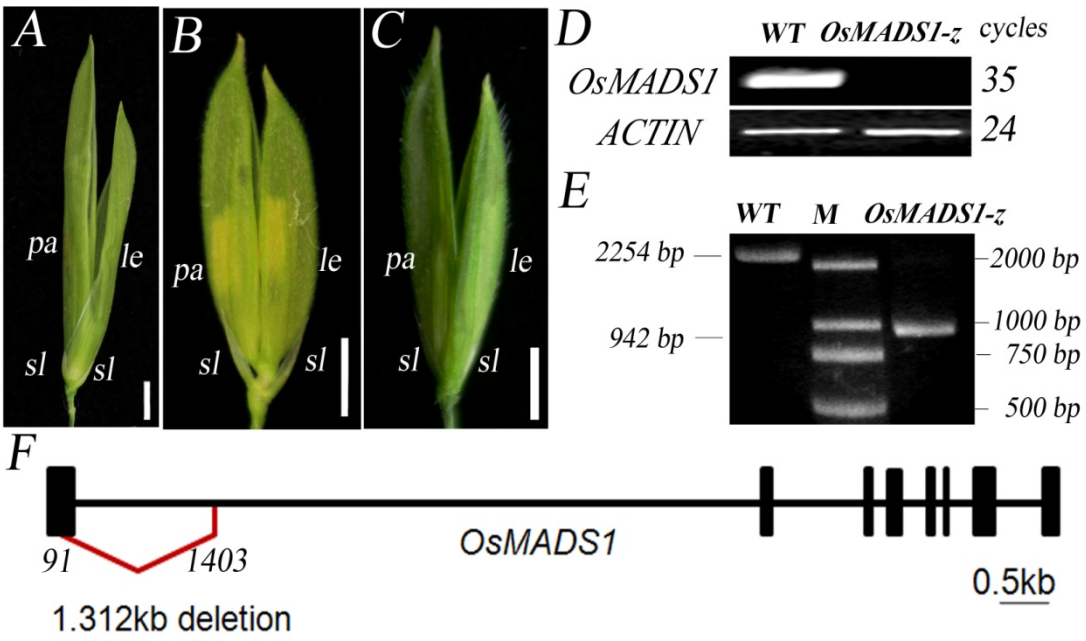
Black dark and grey boxex indicate the similar nucleotides.

Fig.S6



Supplemental Figure 6. OsMADS34 has no transactivational activity, forms homodimer and has no interaction with OsMADS1 in yeast cells.

Fig.S7



Supplemental Figure 7. Analysis and identification of the *osmads1-z* mutant

A-C are the allelic test between the *nsr* and *osmads1-z*; A: spikelet of *nsr*; B: spikelet of *osmads1-z*; C: spikelet of F1 progeny of *nsr* and *osmads1-z*. D: RT-PCR analysis of *OsMADS1* in wild-type and *osmads1-z*, no detectable transcript of *OsMADS1* was observed in the *osmads1-z* spikelet at stage In7; E: Identification of the deleted *OsMADS1* fragment in *osmads1-z* with smaller size compared with wild type, M indicates molecular marker.

Bar: 2 mm in A-C.