BIOINFORMATION

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Supplementry material:

Table 1: Parameters selected for identification of the miRNA

PARAMETERS	
Maximum expectation	3.0 (range: 0.0-5.0)
Length of complementary scoring (hspsize)	20 (range: 15-30)
Target accessibility-allowed maximum energy to unpair the target site (UPE)	25 (range: 25-100)
Flanking length around target site for target accessibility analysis	17 bp in upstream and 13 bp in downstream
Range of central mismatch leading to translational inhibition	nt

Table 2: Accession number of the genes involved in submergence tolerance

GENES	ACCESSION NUMBERS (GenBank)
ABA8'ox1	AB277270
SUB1	DQ011598(SUB1A); DQ011604(SUB1C)
osCTP	AB112061

Table 3: Submergence responsive miRNAs

NAME OF THE miRNAs	ACCESSION NUMBERS (miRBase)	SEQUENCES
osa-miR396a-5p	MIMAT0000977	UUCCACAGCUUUCUUGAACUG
osa-miR396b-5p	MIMAT0000978	UUCCACAGCUUUCUUGAACUG
osa-miR396c-5p	MIMAT0000979	UUCCACAGCUUUCUUGAACUU
osa-miR2919	MIMAT0014050	AAGGGGGGGGGGGGAAAGA
osa-miR1867	MIMAT0007818	UUUUUUUUCUAGGACAGAGGGAGU
osa-miR5076	MIMAT0020564	GAAAUGGGAGCAGAGCAGGUUU
osa-miR821a	MIMAT0004082	AAGUCAUCAACAAAAAAGUUGAAU
osa-miR821b	MIMAT0004083	AAGUCAUCAACAAAAAAGUUGAAU
osa-miR821c	MIMAT0004084	AAGUCAUCAACAAAAAAGUUGAAU
osa-miR6245	MIMAT0024865	AGUAUAGGUGUCGGCUCUAUU
osa-miR6248	MIMAT0024869	UAUUUGAGGAUGGAGGUAGUA

Table 4: Osa-miR1867 binding position and binding sequence within the genome of O. sativa (the binding position and binding sequence for all the submergence responsive miRNAs are given in the supplementary file)

CHROMOSOME NUMBER	BINDING POSITION		BINDING SEQUENCE
	Start	End	
Chromosome No 1	8486410+1	8486435	AAAAAAAAGATCGTGTGTCTGACA
Chromosome No 1	26349444+1	26349469	AAAAAAAAGATAATGTGTATCTCA
Chromosome No 4	8243201+1	8243226	AAAAAAAAGATACTTACTTCCTCC
Chromosome No 12	7197672+1	7197697	AAAAAAAAGATCCTCTCCCCATAT

Table 5: Submergence responsive miRNA target location

miRNAs	Chromosome Number (*No. of Targets*)	Targets predicted
Osa-miR396a /b-5p	Chr 1 (2), Chr 2 (2), Chr 3 (3), Chr 4 (1), Chr 6 (1), Chr 7 (1), Chr 8 (4), Chr 11 (1), Mitochondria(1)	16
Osa-miR396c-5p	Chr 1 (5), Chr 2 (1), Chr 3 (2), Chr 4 (1), Chr 5 (3), Chr 8 (6), Chr 10 (1), Chr 11 (2), Mitochondria(1)	22
Osa-miR2919	Chr 1 (17), Chr 2 (8), Chr 3 (5), Chr 4 (4), Chr 5 (3), Chr 6 (2), Chr 7 (4), Chr 8 (5), Chr 9 (6), Chr 10 (2), Chr 11 (7), Chr 12 (4), Mitochondria(33)	100
Osa-miR1867	Chr 1 (2), Chr 4 (1), Chr 12 (1)	4
Osa-miR5076	Chr 1 (2), Chr 11 (1)	3
Osa-miR821 a /b/c-5p	Chr 1 (3), Chr 2 (1), Chr 3 (2), Chr 4 (1), Chr 6 (2), Chr 7 (1), Chr 8 (1), Chr 10 (1),Chr 11 (1)	13
Osa-miR6245	Chr 1 (3), Chr 2 (2), Chr 3 (1), Chr 4 (4), Chr 5 (2), Chr 9 (2), Chr 12 (2)	16
Osa-miR6248	Chr 1 (2), Chr 2 (3), Chr 3 (5), Chr 5 (2), Chr 6 (1), Chr 7 (4), Chr 9 (1), Chr 10 (3), Chr 12 (5)	26