Appendix A Nutrient solution for culture with different nitrogen types

Type	Reagent	Preparation(g/10 liters of distilled water)		
		NO_3^-:NH_4^+=100:0	NO_3^-:NH_4^+=50:50	NO_3^-:NH_4^+=0:100
Macroelement	KNO_3	697	0	0
	NH_4NO_3	0	914	0
	$(NH_4)_2SO_4$	0	0	1509
	$NaH_2PO_4.2H_2O$	403	403	403
	K_2SO_4	96	714	714
	$Ca(NO_3)_2.4H_2O$	1884	0	0
	$CaCl_2$	0	886	886
	$MgSO_4.7H_2O$	3240	3240	3240
Microelement	$MnCl_2.4H_2O$	15	15	15
	$(NH_4)_6.MO_7O_{24}.4H_2O$	0.74	0.74	0.74
	H_3BO_3	9.34	9.34	9.34
	$ZnSO_4.7H_2O$	0.35	0.35	0.35
	$CuSO_4.5H_2O$	0.31	0.31	0.31
	$FeCl_3.6H_2O$	77	77	77
	Citric acid (monohydrate)	119	119	119

Note: According to the formula of hydroponic nutrient solution of international rice research institute, the ratio of different nitrogen types was adjusted.

Appendix B Primer sequence for q-PCR

Primer name	Primers sequence(5'-3')	Purpose gene
OsNia1-3F	TGGCCGGAAAGTTACAAGGG	*OsNia1*
OsNia1-3R	CGACATCGACGGACCAGAAG	*OsNia1*
OsNia2-2F	CTTGGTGGTACAAGCCGGAG	*OsNia2*
OsNia2-2R	AGCACCAGCACCAGTACTTT	*OsNia2*
OsNRT2.2-2F	GCGACCATGTCACGGTGATG	*OsNRT2.2*
OsNRT2.2-2R	GTAGTTCTCGGTGCTTGCCA	*OsNRT2.2*
OsGS-F	AAATGGAGAGGTCATGCCTGG	*OsGS*
OsGS-R	GCAAGTCATGGCGAAGTGAT	*OsGS*
OsNGS1-F	CTGACATGATTTCTGTGGACG	*OsNGS1*
OsNGS1-R	ACGAGAAGGCTGTTCCCCTC	*OsNGS1*
OsNiR-1F	GACATCGACGTGCGTCTCA	*OsNiR*
OsNiR-1R	CTTGCCGTACGCCTCGATCA	*OsNiR*
ubiquitin-F	AACCAGCTGAGGCCCAAGA	*ubiquitin*
ubiquitin-R	ACGATTGATTTAACCAGTCCATGA	*ubiquitin*