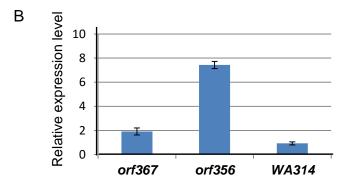
Construct	Transformed plant	Generation	Total no. plants	No. segregant plants	
				Fertile	Partially sterile
MTS-WA314	Rice	T <sub>0</sub>	23	19 (+)	4 (+)
		T <sub>1</sub> -1	180	83 (-)	97 (+)
		T <sub>1</sub> -2	118	58 (-)	60 (+)
		T <sub>1</sub> -3	70	37 (-)	33 (+)
		T <sub>1</sub> -4	61	34 (-)	27 (+)
		BC <sub>1</sub> T <sub>1</sub> -1	30	16 (-)	14 (+)
		BC <sub>1</sub> T <sub>1</sub> -2	10	5 (-)	5 (+)
		BC <sub>1</sub> T <sub>1</sub> -3	13	6 (-)	7 (+)
		$BC_1T_1-4$	22	13 (-)	9 (+)
		$BC_1T_2-1$	105	28 (-)	77 (+)
		$BC_1T_2-2$	113	38 (-)	75 (+)
MTS-WA314	Arabidopsis	T <sub>1</sub>	32	10 (+)	22 (+)
		T <sub>2</sub> -1	30	13 (-)	17 (+)
		T <sub>2</sub> -2	30	18 (-)	12 (+)
		T <sub>2</sub> -3	30	9 (-)	21 (+)
MTS-orf356	Rice	$T_0$	21	21 (+)	0
		T <sub>1</sub> -1	20	20 [13 (+), 7 (-)]	0
		T <sub>1</sub> -2	20	20 [15 (+), 5 (-)]	0
MTS-orf367	Rice	$T_0$	26	26 (+)	0
		T <sub>1</sub> -1	20	20 [17 (+), 3 (-)]	0



**Figure S1.** Male sterility and fertility and the co-segregation with the transgenes in the rice and *Arabidopsis* transgenic plants.

(A) All progenies of rice lines ( $T_1$ ,  $BC_1T_1$ ,  $BC_1T_2$ ) and *Arabidopsis* lines ( $T_2$ ) were derived from the partial male-sterile  $T_0$  (rice) and  $T_1$  (*Arabidopsis*) plants, respectively. "+" and "-" indicate the presence and absence of the transgenes, respectively. (B) Expression of the transgenes in anthers (at meiosis stage) of some transgenic ( $T_1$ ) plants with *MTS-WA314* (partial male sterile), *MTS-orf365* (male fertile) and *MTS-orf367* (male fertile) by qRT-PCR, using *Actin 1* as the control (ratios of target genes/*Actin 1*).