

**Supplemental Table S1.** Primers used in this study.

Primer Name	Gene name (AGI)	Primer sequence (5' > 3')	Amplicon length (bp)	Notes
LP1	<i>PTM</i> (At5g35210)	TTGACAACATGCATCTCCATTG	1,098	PCR genotyping <i>ptm-1</i> (WT band)
RP1		CTAGCAGATTTGGTCATTGGG		
LP2	<i>PTM</i> (At5g35210)	TACTTGGGGTTCCACAGAG	1,142	PCR genotyping <i>ptm-2</i> (WT band)
RP2		TTTTACCATGGCAAGAACTGC		
LP	<i>GUN1</i> (AT2G31400)	ATGTTTAGTAGCCACGCATGG	1,110	PCR genotyping <i>gun1-103</i> (WT band)
RP		TTGATCGATGGGTAICTCGAAG		
LB	Salk_013123	ATTTTGCCGATTCGGAAC	687 (with RP1)	T-DNA primer for PCR genotyping <i>ptm</i> mutants (mutant bands)
	Salk_073799 (RP side)		661 (with RP2)	
	Salk_073799 (LP side)		904 (with LP2)	
LB	SAIL_742_A11	GTGTACCAACAACGCTTTACAGC	760 (with RP)	T-DNA primer for PCR genotyping <i>gun1</i> mutant (mutant band)
qF1	<i>PTM</i> (At5g35210)	TCCTCTCTGGTATCAGTTTCC	181	qRT-PCR primer for <i>PTM</i> (Southampton)
qR1		CTCTGCCTCGGGTTTCCACA		
qF2	<i>PTM</i> (At5g35210)	GTATAATCCTGGGTTAACGTATATTTCACTG	103	qRT-PCR primer for <i>PTM</i> (Kyoto)
qR2		CCCAACAACCTCAGGAATTTGTGAATC		
Lhcb1.2_F	<i>LHCB1.2</i> (At1g29910)	GTGTGACAATGAGGAAGACTGTTGCC	381	qRT-PCR primer for <i>LHCB1.2</i> (Kyoto)
Lhcb1.2_R		AAATGCTCTGAGCGTGGACCAAGCTA		
Lhcb1.2_F	<i>LHCB1.2</i> (At1g29910)	GAGTGAGAGACATGAGGAGAAAAG	60	qRT-PCR primer for <i>LHCB1.2</i> (Southampton)
Lhcb1.2_R		ACATCTGAAAGTCTCAAACCATC		
Lhcb2.1_F	<i>LHCB2.1</i> (At2g05100)	GTGACCATGCGTCTACCGTC	246	qRT-PCR primer for <i>LHCB2.1</i> (Kyoto)
Lhcb2.1_R		CTCAGGGAATGTGCATCCGAG		
Lhcb2.1_F	<i>LHCB2.1</i> (At2g05100)	CTCCGAAGTTGGTGTATC	142	qRT-PCR primer for <i>LHCB2.1</i> (Southampton)
Lhcb2.1_R		CGTTAGGTAGGACGGTGTAT		
CA1_F	<i>CA1</i> (At3g01500)	GCTTCTTTCTCACTTCACTTTCTC	189	qRT-PCR primer for <i>CA1</i> (Southampton)
CA1_R		CAATGATAGGAGCAGGAGCG		
HEMA1_F	<i>HEMA1</i> (At1g58290)	GCTTCTTCTGATTCTGCGTC	128	qRT-PCR primer for <i>HEMA1</i> (Southampton)
HEMA1_R		GCTGTGTGAATACTAAGTCCAATC		
CHLH_F	<i>CHLH</i> (At5g13630)	CATTGCTGACACTACAACCTGC	145	qRT-PCR primer for <i>CHLH</i> (Southampton)
CHLH_R		CTTCTCTATCTCACGAACCTTTC		
GUN1_F	<i>GUN1</i> (AT2g31400)	GCTACTAAACATACGCTCCATTG	115	qRT-PCR primer for <i>GUN1</i> (Southampton)
GUN1_R		TCGCTTTAGTCTCCGCTCTC		
GUN4_F	<i>GUN4</i> (At3g59400)	CAATCTCACTTCGGACCAAC	121	qRT-PCR primer for <i>GUN4</i> (Southampton)
GUN4_R		TTGAAACGGCAGATACGG		
ADF2_F	<i>ADF2</i> (At3g46000)	CGATTTGACTTTGTCACTGC	95	qRT-PCR primer for <i>ADF2</i> (Southampton) – reference gene
ADF2_R		TCATCTTGTCTCACTTTGGC		
YLS8_F	<i>YLS8</i> (At5g08290)	GCTGAAATATCCCGTGAACCTG	93	qRT-PCR primer for <i>YLS8</i> (Southampton) – reference gene
YLS8_R		AATGGAGAACAACCGAAACAG		
YLS8_F	<i>YLS8</i> (At5g08290)	AAGGACAAGCAGGAGTTTCTT	91	qRT-PCR primer for <i>YLS8</i> (Southampton) – reference gene
YLS8_R		AGTAATCTTTGGAGCAATCACC		
TUB2_F	<i>TUB2</i> (At5g62690)	CCAGCTTTGGTGATTTGAAC	102	qRT-PCR primer for <i>TUB2</i> (Kyoto) – reference gene
TUB2_R		CAAGCTTTCCGAGGTGAGAG		
ACTIN_F	<i>ACT2</i> (At3g18780)	GGTAACATTGTCTCAGTGGTG	201	qRT-PCR primer for <i>ACT2</i> (Sun <i>et. al</i> 2011) – reference gene
ACTIN_R		CTCGGCCTTGGAGATCCACATC		