

## Supplementary Materials

Table S1. *Pbe1 pbe2* double mutants are inviable

Genotypes of Progeny from Selfed AaBb Parent <sup>a</sup>			
Genotype	Number <sup>b</sup>	%	Expected % <sup>c</sup>
AxBy <sup>d</sup>	266	80.1%	56.25%
aaBB	35	10.5%	6.25%
AAbb	31	9.3%	6.25%
aaBb	0	0	12.5%
Aabb	0	0	12.5%
aabb	0	0	6.25%
<sup>a</sup> <i>PBE1</i> (A), <i>pbe1</i> (a), <i>PBE2</i> (B), <i>pbe2</i> (b). <i>pbe1</i> is SALK_092686, <i>pbe2</i> is SALK_004669. <sup>b</sup> Total individuals genotyped = 332. <sup>c</sup> Expected genotypes if all combinations are viable. <sup>d</sup> x is A or a; y is B or b. AxBy includes AABB, AaBB, AABb, AaBb.			

Table S4. All primers used in this study.

Gene	AGI ID	Name	5' to 3'
ACTIN8	AT1G49240	ACT8-qF ACT8-qR	CCCGAGCAGCATGAAGATTA CTGAGGGAAGCAAGGATAGAAC
PP2A	AT1G69960	PP2A-qF PP2A-qR	TATCGGATGACGATTCTTCGTGCAG GCTTGGTCGACTATCGGAATGAGAG
ADH1	AT1G77120	ADH1-qF ADH1-qR	GAATCGCTGGTGCTTCTA CCTGTTGAATTGGCTTGTC
RGAT1	AT1G19530	RGAT1-qF RGAT1-qR	AAGAAGAATGAAGAAGAAGAACA CTCCACCATCCACTACTC
CBP60G	AT5G26920	CBP60G-qF CBP60G-qR	AACACTTCTCTTCAACTCTG CTGTAATGCGGTTAAGGTT
CYP81F2	AT5G57220	CYP81F2-qF CYP81F2-qR	TCTTCATTGCCTCTCGTA ATAGTGGTGTAATCGTAAGC
ERF071	AT2G47520	ERF071-qF ERF071-qR	GTAGAAGAAGAAGCCGATACTA TAATCCTCCAATGCCATCA
PCO1	AT5G15120	PCO1-qF PCO1-qR	TGGTCCTGGTGTTATTCC GTTATTGGTGCGAAGAC
PCO2	AT5G39890	PCO2-qF PCO2-qR	CGGTTCTTGATGTTATTGGT CATAGCCTTCCTTCTCCTC
POX1	AT3G30775	POX1-qF POX1-qR	TTCTCGCAACACATAACG GCATCTGACATACCATATAGC
SUS1	AT5G20830	SUS1-qF SUS1-qR	GCAACAAGGACTCAACATTA GGCACACGAAGAATATCAC
SUS4	AT3G43190	SUS4-qF SUS4-qR	GCATCTACTTCGCTTACAC TGGCTTCTCTTGTCCTT
WRKY70	AT3G56400	WRKY70-qF WRKY70-qR	ACACCATCTCCGTTCTTG TTGCCGTCGTTATCACAT
PAA2	AT2G05840	PAA2-qF PAA2-qR	GTCCGAGGGAAAGATTCAGTATGC CCAGTGGCTAACAATCCAAGGT
PAG1	AT2G27020	PAG1-qF PAG1-qR	TGGCTTGCTCTGGCTTGA GTTCCAATGCTACTCATCTTCCTT
PBA1	AT4G31300	PBA1-qF PBA1-qR	CTACTTCCTTCACCAGCATACAAT ATCCTCCAACGATGAGACCA
PBE1	AT1G13060	PBE1-qF PBE1-qR	ATATGCTTACGGTGTGCTGGA CGGAATGTGCGATGGTAGATTG
PBE2	AT3G26340	PBE2-qF PBE2-qR	GTTCAGGTTCAACATACGCTTAT CTTGCTAACTCTGAGGCTTCTC
RPT2A	AT4G29040	RPT2A-qF RPT2A-qR	TGAGAGTTGTTGGTAGTGA GAAGACGATTGATGGTGAA
RPN10	AT4G38630	RPN10-qF RPN10-qR	CGCCTCACAGGAGACAGT TTCACATCACCAACAGACATAGC
RPN12A	AT1G64520	RPN12A-qF RPN12A-qR	TGAGTGGGAAGTGAAGGAAGG GCTTAGAGTCTGGTTGATGAGTTG