Table S2. Phenotyping of T-DNA lines disrupting confirmed MEGs or the PEG. No obvious mutant phenotype was observed.

T-DNA line	locus	insertion site	seed set <sup>1</sup>	embryo patterning <sup>2</sup>	comments	
SAIL_641_B05	AT1G29660	1 <sup>st</sup> exon	wild-type	wild-type	MEG	
SALK_023064C	AT1G29660	5 <sup>th</sup> exon	wild-type	wild-type	MEG	
SALK_039929C	AT1G72260	promoter	wild-type	wild-type	MEG	
GABI_054H02	AT1G72260	3 <sup>rd</sup> exon	wild-type	wild-type	MEG	
FLAG_382E11	AT2G47115	5 <sup>th</sup> exon	wild-type	wild-type	MEG	
SALK_038225	AT5G62210	2 <sup>nd</sup> exon	wild-type	wild-type	MEG	
GABI_243D08	AT5G62210	intron	wild-type	wild-type	MEG	
SAIL_330_H06	AT5G62210	promoter	wild-type	wild-type	MEG	
SALK_010358.23.30	AT3G20520	2 <sup>nd</sup> exon	wild-type	wild-type	MEG	
SALK_152374.35.55	AT3G20520	4 <sup>th</sup> exon	wild-type	wild-type	MEG	
SALK 067511	AT2G17710	promoter	wild-type	wild-type	MEG	
SALK 067639	AT2G17710	promoter	wild-type	wild-type	MEG	
SALK_112762	AT3G21500	4 <sup>th</sup> exon	wild-type	wild-type	MEG	
SALK_039162.21.10	AT3G26790	1 <sup>st</sup> exon	wild-type	wild-type	PEG; late pheno	type (Raz et al. 2

<sup>1</sup> mature siliques of 12-24 genotyped individuals were opened and examined for aborted seeds or infertile ovules.
<sup>2</sup> siliques at different stages were cleared using Hoyer's solution and analyzed for patterning defects.
<sup>3</sup> Raz et al. 2001 find a prolonged cell division phase in late embryos (torpedo stage). We analyzed earlier stages only.