

D-type cyclins control cell division and developmental rate during Arabidopsis seed development

Carl Collins, Walter Dewitte and James A. H. Murray

Table S1. Frequencies of phenotypic classes in $P_{RPS5A}>>CYCD3;1$ seeds (from Table 4).

HAP	Phenotypic classes	Developmental stage ^a		
		Globular	Transition	Heart
96	Class 1: Suspensor overproliferation	44%	70%	67%
	Class 2: Suspensor/basal embryo overproliferation	20%	0%	0%
	Class 3: Basal embryo overproliferation	4%	0%	0%
	Wild type-looking	32%	30%	33%
	Total:	100%	100%	100%
120	Class 1: Suspensor overproliferation	52%	63%	72%
	Class 2: Suspensor/basal embryo overproliferation	20%	14%	0%
	Class 3: Basal embryo overproliferation	10%	0%	0%
	Wild type-looking	18%	23%	28%
	Total:	100%	100%	100%
168	Class 1: Suspensor overproliferation	65%	55%	71%
	Class 2: Suspensor/basal embryo overproliferation	30%	22%	0%
	Class 3: Basal embryo overproliferation	5%	0%	0%
	Wild type-looking	0%	23%	29%
	Total:	100%	100%	100%
216	Class 1: Suspensor overproliferation	60%	100%	80%
	Class 2: Suspensor/basal embryo overproliferation	24%	0%	0%
	Class 3: Basal embryo overproliferation	16%	0%	0%
	Wild type-looking	0%	0%	20%
	Total:	100%	100%	100%

Approximately 150 seeds were analysed at each time point. $P_{RPS5A}>>CYCD3;1$ embryos were from ACT *RPS5A* plants pollinated using EF *CYCD3;1* plants as pollen parents.

HAP, Hours after pollination.

^aDoes not include abnormal torpedo stage embryos.

Table S2. Frequencies of phenotypic classes in $P_{RPS5A}>>CYCD7;1$ seeds (from Table 4).

HAP	Phenotypic classes	Developmental stage ^a					
		Globular	Transition	Heart	Torpedo	Bent cotyledon	Mature
120	Class 1:	27%	8%	20%	0%		
	Class 2:	23%	45%	45%	0%		
	Class 3:	0%	0%	0%	0%		
	Class 4:	0%	0%	0%	0%		
	Wild type:	50%	47%	35%	100%		
	Total:	100%	100%	100%	100%		
168	Class 1:	39%	0%	0%	0%	0%	
	Class 2:	61%	0%	68%	0%	0%	
	Class 3:	0%	0%	0%	0%	46%	
	Class 4:	0%	0%	0%	0%	10%	
	Wild type:	0%	100%	32%	100%	44%	
	Total:	100%	100%	100%	100%	100%	
216	Class 1:	65%	NA ^b	0%	0%	0%	0%
	Class 2:	30%	NA	100%	63%	0%	0%
	Class 3:	5%	NA	0%	0%	36%	39%
	Class 4:	0%	NA	0%	0%	0%	33%
	Wild type:	0%	NA	0%	37%	64%	28%
	Total:	100%	100%	100%	100%	100%	100%

Approximately 150 seeds were analysed at each time point. $P_{RPS5A}>>CYCD7;1$ seeds were from self-pollinated $P_{RPS5A}>>CYCD7;1$ plants homozygous for ACT $RPS5A$ and EF $CYCD7;1$ constructs.

HAP, Hours after pollination.

Class 1: Enlarged embryo

Class 2: Enlarged embryo and reduced endosperm

Class 3: Reduced endosperm/final seed size

Class 4: Enlarged endosperm/final seed size

Wild type: normal, wild type-looking

^aDevelopmental stages prior to globular are not shown as phenotypes were all wild type-looking.

^bNA, not applicable. This embryonic stage was not observed at this time point.