

Table S4. Frequency of asymmetric PIN1:GFP expression in wild-type and *iaa18-1/IAA18* embryos*

Embryo genotype	Early globular stage		Mid-globular stage		Late globular/transition stage	
	<i>IAA18/IAA18</i>	<i>iaa18-1/IAA18</i>	<i>IAA18/IAA18</i>	<i>iaa18-1/IAA18</i>	<i>IAA18/IAA18</i>	<i>iaa18-1/IAA18</i>
Experiment 1 [†]	1/22 (5%)	5/13 (38%)	0/23 (0%)	6/11 (55%)	0/5 (0%)	1/3 (33%)
Experiment 2 [†]	0/12 (0%)	5/38 (13%)	0/19 (0%)	8/23 (35%)	0/11 (0%)	1/4 (25%)
Experiment 3 [†]	0/27 (0%)	3/17 (18%) [†]	0/26 (0%)	7/18 (39%) [†]	0/17 (0%)	2/4 (50%) [†]
Total	1/61 (2%)	13/68 (19%)	0/68 (0%)	21/52 (40%)	0/33 (0%)	4/11 (36%)

*Shown are numbers of embryos with asymmetric PIN1:GFP expression over number of embryos observed, and calculated percentages (in parentheses).

[†]In experiments 1 and 2, pollen from wild-type or *iaa18-1* homozygous plants was used to pollinate homozygous marker lines that were wild-type at *IAA18*. In experiment 3, a plant homozygous for $P_{PIN1}:PIN1:GFP$ and heterozygous for *iaa18-1* was selfed, and '*iaa18-1/+*' embryos were therefore actually a mixture of wild-type, *iaa18-1/IAA18* and *iaa18-1/iaa18-1* genotypes in roughly 1:2:1 ratio. In experiment 1, we used a $P_{PIN1}:PIN1:GFP P_{REV}:REV:Venus P_{FIL}:DsRED$ marker line, and in experiments 2 and 3 we used a $P_{PIN1}:PIN1:GFP P_{STM}:YFP P_{WUS}:DsRED$ line. Expression of $P_{REV}:REV:Venus$, $P_{FIL}:DsRED$, $P_{STM}:YFP$ and $P_{WUS}:DsRED$ markers in these lines were not analyzed.