

Supporting Information

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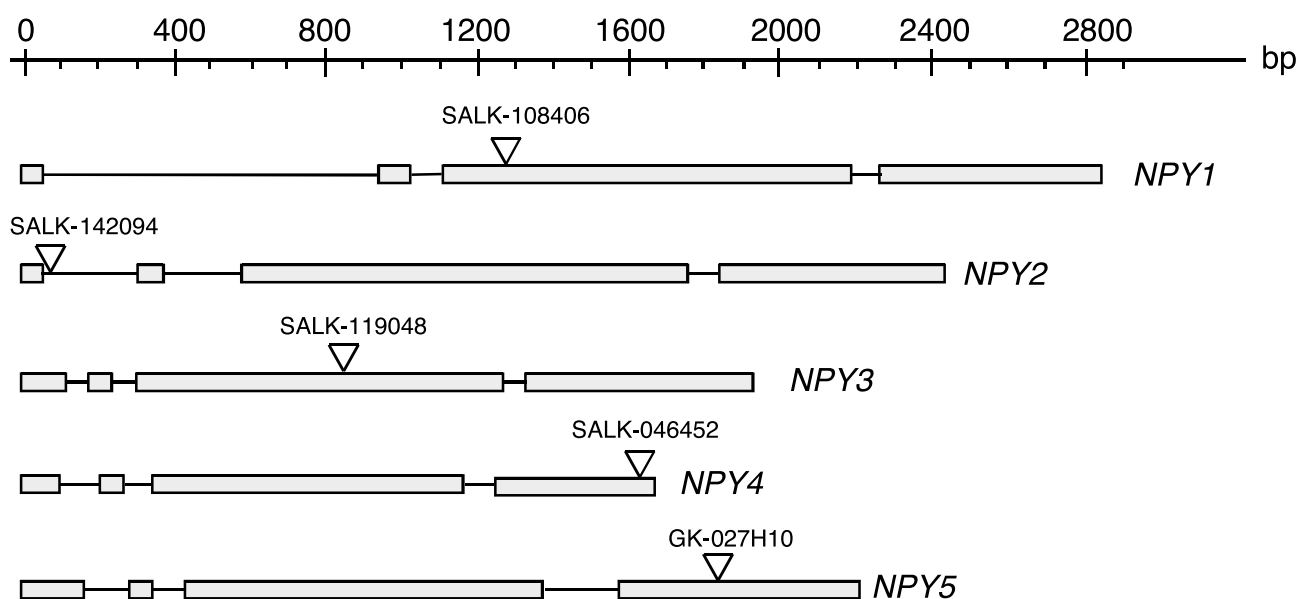


Fig. S1. T-DNA insertions in the *npy* mutants. The rectangular bars represent exons, and straight lines represent introns. The insertion sites are marked with a triangle. The exact insertion sites are described in the text.



Flowers	<i>npy1npy5</i> flower			<i>pid</i> flower		
	Sepal	Petal	Stamen	Sepal	Petal	Stamen
1	3	7	1	3	7	1
2	3	7	2	3	8	3
3	4	5	2	2	8	0
4	3	5	2	3	8	2
4	3	5	1	4	7	0
6	3	6	0	2	6	1
7	1	5	2	3	7	0
8	3	5	2	5	7	3
9	4	5	0	1	7	1
10	3	6	3	4	8	2
11	3	5	2	2	8	1
12	4	6	3	2	8	1
13	3	4	3	2	8	1
14	2	6	3	2	7	0
15	4	6	1	1	9	0
16	3	5	1	3	6	1
17	3	5	2	2	8	1
18	4	5	3	2	7	1
19	3	4	3	3	7	0
20	3	4	2	1	8	1
Average	3.1	5.3	1.9	2.5	7.45	1

Fig. S2. Flower defects in *npy1 npy5* double mutants. (Upper) (Left) Wild-type *Arabidopsis* flowers usually have four sepals, four petals, and six stamens. (Center and Right) Both *pid* (Center) and *npy1 npy5* (Right) had more petals. (Lower) Quantitative analyses of the floral organ numbers are detailed.

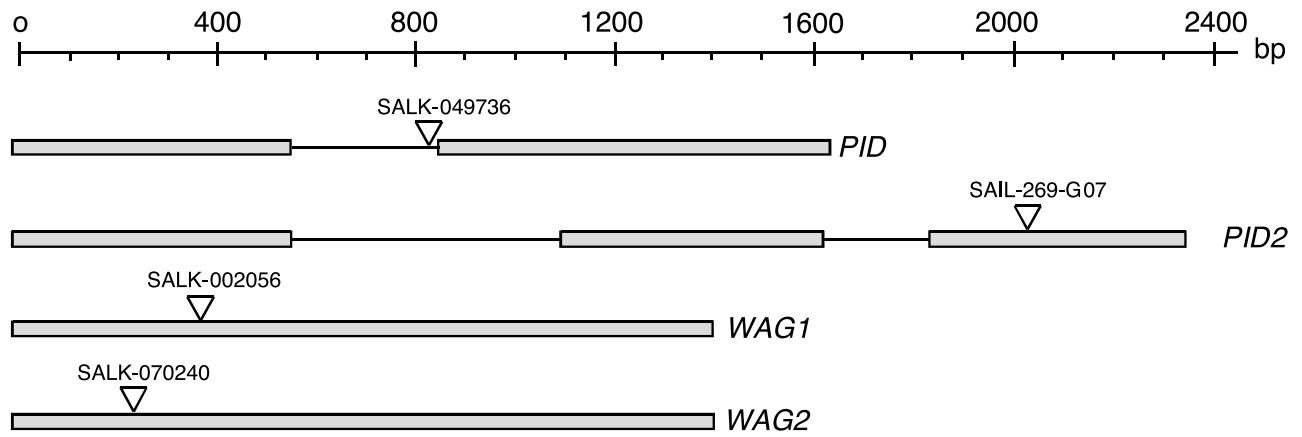


Fig. S3. Schematic presentation of the T-DNA insertions in the mutants of *pid* and its homologs. Rectangular bars represent exons, and straight lines represent introns. The insertion sites are marked with a triangle. The exact insertion sites are described in the text.

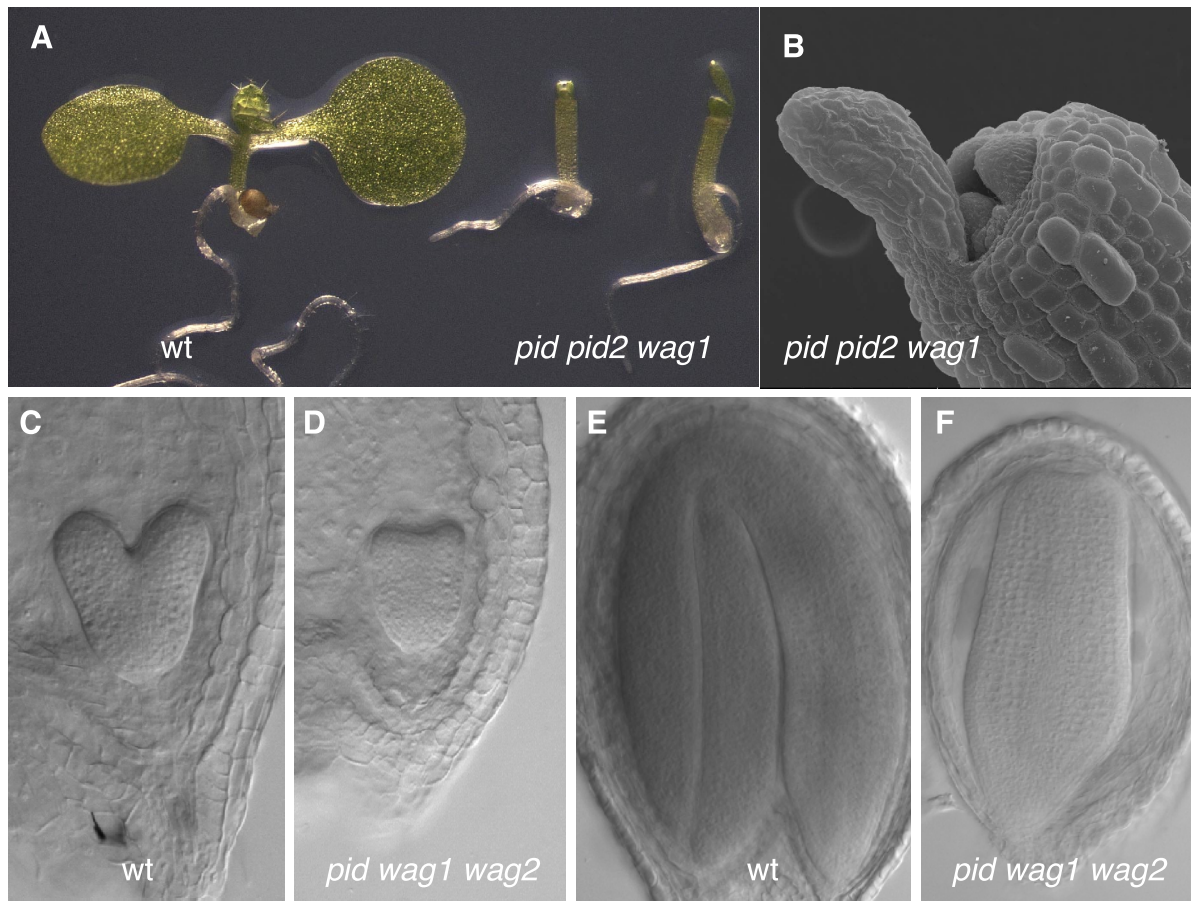


Fig. 54. Analysis of cotyledon defects in mutants in which *PID* and some of its homologs were disrupted. (A) Cotyledon defects in *pid pid2 wag1*. A small percentage of *pid pid2 wag1* did not make cotyledons or only had residual cotyledons. (B) A SEM graph shows a residual cotyledon. (C) A wild-type heart-stage embryo. (D) A heart-stage embryo of *pid wag1 wag2*. (E) A mature wild-type embryo. Cotyledons were obvious. (F) A mature embryo of *pid wag1 wag2*. No cotyledons were formed.

Table S1. Genotyping primers for mutations in members of the *NPY* and *PID* families

Primer	Primer sequence
NPY1-LP	5'-CCTCTGGATATTCTAAACTAGGC-3'
NPY1-RP	5'- CAAACTCCTTGTACCGGTCATC-3'
NPY2-LP	5'-GCTGTGTATCGCCGTGGTTAC-3'
NPY2-RP	5'-CATCTCGAGCCTTGATTGAATCC-3'
NPY3-RP	5'-GAGATCACCCACATTTGCTTCC-3'
NPY3-LP	5'-ATGAAGTTTATGAAACTTGGATCC-3'
NPY4-LP	5'-CCTCTAGCTTCTTGACCAAGCTAC-3'
NPY4-RP	5'-GTGATGGTCTGTTGGTGATTGG-3'
NPY5-LP	5'-CTAATGCTTCTTGCTTGTGGAAG-3'
NPY5-RP	5'-CCTGATGAGAAACGTAGCGTTTC-3'
PID2-LP	5'-CGCAGCAGAAACTCTAGTGG-3'
PID2-RP	5'-CGTCCATAATAATCACATGGACCTC-3'
WAG1-LP	5'-ATGGAAGACGACGGTTATTACC-3'
WAG1-RP	5'-GGAGAAACAACCGCCACCACG-3'
WAG2-LP	5'-CTCCGAGCAACGGAGAAGCAAC-3'
WAG2-RP	5'-GAACTCTTGCTCAAAGACACAC-3'