



Supplemental Figure 1. *pex7-2* IBA resistance and sucrose dependence suggest IBA and fatty acid β -oxidation defects. (A) *pex* mutants are resistant to root elongation inhibition by IBA. Seeds were stratified 3 days at 4°C prior to 8 days of growth under yellow-filtered light on medium without hormone or supplemented with IBA. Four seedlings representing the range of observed responses are shown; bar, 1 cm. (B) Sucrose dependence of dark-grown *pex* mutants. Seedlings were grown with or without sucrose for 1 day in light and 5 days in darkness. Four seedlings representing the range of observed hypocotyl lengths are shown; bar, 1 cm. (C) Sucrose dependence of light-grown *pex* mutants. Seedlings were grown for 8 days with or without sucrose under white light. Four seedlings representing the range of observed responses are shown. Bar, 1 cm.

Supplemental Table 1. PCR-based markers used in *pex7-2* mapping.

Marker	Oligonucleotide pair	Enzyme	Product sizes (bp)		Reference
			Col	Ler	
nga63	nga63-1, CCCAAGTGATCACCACCGAAGCCC nga63-2, GTGCCTAAACCAAGGCACAGAAGCGC	--	111	89	Bell and Ecker, 1994
F28N24	F28N24-1, CTTGATGCAAATCCATAGGAAGTGAGTCA F28N24-2, CCGTTTGCAGGCATGATATAAACCTGTCA	--	257	219	This work
F27G20	F27G20-1, CACATGCTTAGCGAGATTCCACATTCCAT F27G20-2, ATAGCGAGGAATTGACGAATCCTCTAGAG	--	179	166	Fujibe, 2006
F6N18	F6N18-2, ATTGATTTCTAACTCCA ACTCTACATAGC F6N18-4, GTTTGTGTTCTTTGTTGTTTCTTTTAG	--	202	181	Woodward, 2005
T9L6	T9L6-1, CCAAGTATTT CAGGTATTCAGGTA CT TGT T9L6-2, GGTTAAATATACAACCATT CCTAGCCCA	HpyCH4IV	313 121	434	Magidin, 2002

References:

- Bell CJ, Ecker JR (1994) Assignment of 30 microsatellite loci to the linkage map of *Arabidopsis*. *Genomics* **19**, 137-144.
- Fujibe T, Saji H, Watahiki MK, Yamamoto KT (2006) Overexpression of the *RADICAL-INDUCED CELL DEATH1 (RCD1)* gene of *Arabidopsis* causes weak *rcd1* phenotype with compromised oxidative-stress responses. *Biosci. Biotechnol. Biochem.* **70**, 1827-1831
- Magidin M (2002) Genetic analysis of auxin homeostasis: Conjugate sensitivity and auxin supersensitivity. Ph.D. thesis, Department of Biochemistry and Cell Biology (Rice University, Houston, Texas), 170 pages.
- Woodward AW (2005) Genes, organelles, and molecules that influence plant development through auxin regulation. Ph.D. thesis, Department of Biochemistry and Cell Biology (Rice University, Houston, Texas), 226 pages.

Supplemental Table 2. Primers used for subcloning.

Oligonucleotide name	Sequence (5' to 3')
PEX5-SalIF	GCGGAGGAGTAGAAACCCGTTGGAAACATGGCGATGAGAG
PEX7-SalI-F	GTCGACGAAGCTATGCCGGTG
PEX7-NotI-R	GCGGCCGCTCAACTGGCTCTAGGATCC
PED1-SalI-F1	GTCGACAAGAAAAAATGGAGAAA
PED1-NotI-R	GCGGCCGCCTAGCGAGCGTCCTT
PED1-SalI-F2	GTCGACAAGAAAAAATGTTGGCT
