

**Supplementary Table S1** *S/CCD8* mutant lines provided by the University of Tsukuba

Line No.	Point mutation (nucleotide)	Point mutation (amino acid)	Recessive homozygous mutants	Number of branches	Orobanchol	Germination assay
WT	—	—	—	1–4	Detected	Germinated
7343	G1498T	V206F	Not found	—	—	—
7024	A1507T	T209S	Not found	—	—	—
8245	G1624A	D248N	Found	1–4	Detected	Germinated
7311	G1624A	D248N	Not found	—	—	—
5639	C1769T	P296L	Not found	—	—	—
7720	C2122T	D387 = Stop codon	Not found	—	—	—
8940	G2214T	Non-coding	Found	1–4	Detected	Germinated
2481	G2266A	Splice junction	Not found	—	—	—
5550	G2271A	G414R	Not found	—	—	—
3979	C2302T	P424L	Not found	—	—	—
5291	C2578T	S494F	Found	4–7	Not detected	Not germinated
2757	G2616A	E507K	Found	4–7	Not detected	Not germinated

**Supplementary Table S2** Primers used in this study

Primer name*	5'-sequence-3'
<i>S/CCD8</i> -TILLING F	AACCTCATTCCACATCATGTCAC
<i>S/CCD8</i> -TILLING R	TTGGAACCCAACAACCATGTAG
5291 F	AAGGCATGGATATGTGCAGT
5291 R	TTGTTGAGAACAGGGCCAAA
2757 F	AAGGTAGCTTCTTCCTTAC
2757 R	TGTTACACCTTGTCAGAACAG
<i>S/CCD8</i> -qRT-PCR F	AGATATGCTTATGCTTGTGGTCTA
<i>S/CCD8</i> -qRT-PCR R	ACAGCACCTTCATCACCAATTCT
<i>S/CCD8</i> -qRT-PCR TaqMan	f-GTCCCCAACACCCCTACCAAGATTGATTAT-t**
<i>SIEF1α</i> -qRT-PCR F	CCAAGAGGCCATCAGACAAA
<i>SIEF1α</i> -qRT-PCR R	AGGCTTGATCACACCAGTCTCA
<i>SIEF1α</i> -qRT-PCR TaqMan	f-GCCCTCCGTCTTCCACTTCAG-t**

\*F and R indicate forward and reverse primers, respectively.

\*\*f and t in TaqMan probe sequences indicate the fluorescence labels FAM and TAMRA, respectively.