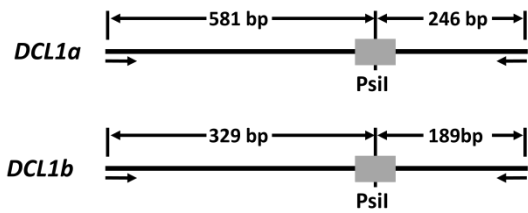


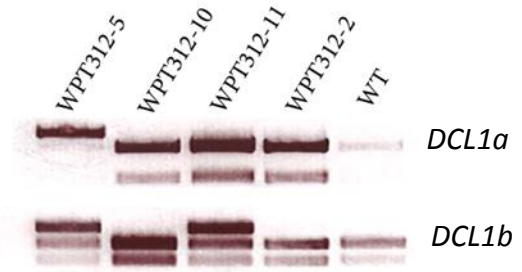
A

GOI	Promoter	Architecture	Accession	Target site	ZFAs
DCL1a	Inducible	ZFN-4R	Glyma03g42290	cAGCAACCTCTTATAAGAGGGCGTGg	TKQILGR HKSSLTR RHDQLTR
DCL1b	Inducible	ZFN-4R	Glyma19g45060	gTCGTTGGAGAATATTCTCCCGCACc	SRFTLGR LKEHLTR RVDNLPR

B



C



D

#### WPT312-5\_TO\_DCL1a

```

GGGGTTAATTTGATTACAAGCAGCAA-----TAAGAGGGCGTGGTGTATCATACTGCAAGAATCT Δ7-bp
GGGGTTAATTTGATTACAAGCAGCAA-----TAAGAGGGCGTGGTGTATCATACTGCAAGAATCT Δ7-bp
GGGGTTAATTTGATTACAAGCAGCAACCTCTT-----GGGCGTGGTGTATCATACTGCAAGAATCT Δ6-bp
GGGGTTAATTTGATTACAAGCAGCAACCTCTT-----GGGCGTGGTGTATCATACTGCAAGAATCT Δ6-bp
GGGGTTAATTTGATTACAAGCAGCAA-----TAAGAGGGCGTGGTGTATCATACTGCAAGAATCT Δ7-bp
GGGGTTAATTTGATTACAAGCAGCAACCTCTT-----GGGCGTGGTGTATCATACTGCAAGAATCT Δ6-bp
GGGGTTAATTTGATTACAAGCAGCAACCTCTTATAAGAGGGCGTGGTGTATCATACTGCAAGAATCT WT
  
```

#### WPT312-5\_TO\_DCL1b

```

GGGGTTGATTGATTACAGGCAGCAACCTCT---AAGAGGGCGTGGTGTATCATACTGCAAGAATCT Δ3-bp
GGGGTTGATTGATTACAGGCAGCAACCTCT---AAGAGGGCGTGGTGTATCATACTGCAAGAATCT Δ3-bp
GGGGTTGATTGATTACAGGCAGCAACCTCT---AAGAGGGCGTGGTGTATCATACTGCAAGAATCT Δ3-bp
GGGGTTGATTGATTACAGGCAGCAACCTCTTATAAGAGGGCGTGGTGTATCATACTGCAAGAATCT WT
  
```

#### WPT312-11\_TO\_DCL1b

```

GGGGTTGATTGATTACAGGCAGCAACCTCT-----TGTATCATACTGCAAGAATCT Δ15-bp
GGGGTTGATTGATTACAGGCAGCAACCTCT-----TGTATCATACTGCAAGAATCT Δ15-bp
GGGGTTGATTGATTACAGGCAGCAACCTCT-----TGTATCATACTGCAAGAATCT Δ15-bp
GGGGTTGATTGATTACAGGCAGCAACCTCTTATAAGAGGGCGTGGTGTATCATACTGCAAGAATCT WT
  
```

**File S1. (A)** The DCL1 zinc-finger nuclease target site and the individual seven amino acid zinc-finger cassettes (F1,F2 & F3) that make-up each zinc-finger array [23]. **(B)** PCR assays for detection of mutated *DCL1a* and *DCL1b* alleles. PstI resistant amplicons indicate target mutations. **(C)** PCR of WPT312-5, WPT312-10, WPT312-11 and WPT312-2 T0 plants.. The gel bands indicate bi-allelic mutations at *DCL1a* and a mono-allelic mutation at *DCL1b* in the WPT312-5 plant. A mono-allelic mutation of *DCL1b* was observed in WPT312-11. Both WPT312-10, WPT312-2 plants had wild-type alleles at both *DCL1a* and *DCL1b* loci. **(D)** Sequence confirmation of *dcl1a* and *dcl1b* mutant alleles.