

Running Title:

Highly efficient heritable targeted deletions of gene clusters and non-coding regulatory regions in *Arabidopsis* using CRISPR/Cas9

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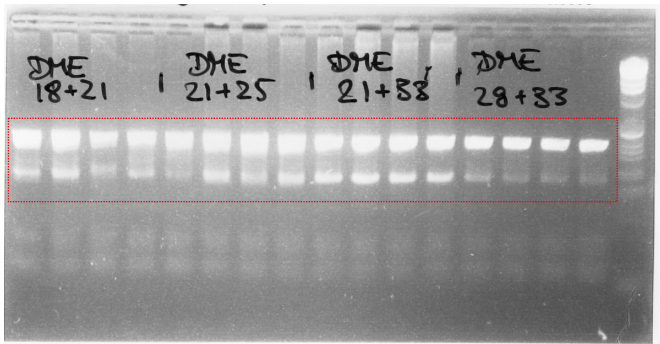
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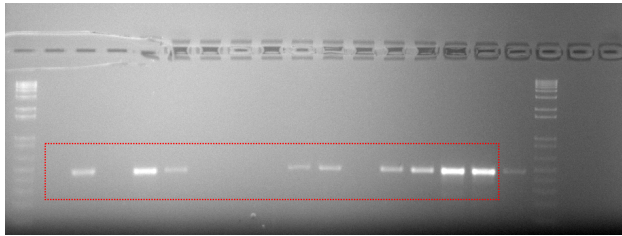
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JD01	sgRNA1 fw	GCGGCCGCGGCAAATAATGATTTTATTTTG
JD02	sgRNA1 rv	AATTCTGCAGTAATGCCAACTTTGTACAAG
JD03	sgRNA2 fw	AATTCTGCAGCTTTTTTTCTTCTTCTTCGT
JD04	sgRNA2 rv	AATTGAGCTCCAAATAATGATTTTATTTT
JD08	OLE1::RFP fw	AATTGTTTTAAACAGTGTATGTAGGTATAGTAA
JD09	OLE1::RFP rv	AATTGTTTTAAACTCTAGTAACATAGATGACAC
JD125	EF1a fw	CTCACATTTTCGTAGCCGCAAGAC
JD126	EF1a rv	GATCAAGTGACCAGTTGTGGTTCGAT
JD151	GABI o8409	ATATTGACCATCATACTCATTGC
JD157	CR-ISU1 fw	GAGACGAGTTATATAGTGGGAC
JD158	CR-ISU1 rv	GGATCTAAGACTAAGATGACAA
JD160	CR-ISU1 inrv	GCTGTCACACACTCTACGCCCAT
JD271	CNI1 fw	CAGTTTCCACAGTTAATCATTGAGCGTCA
JD272	CNI1 rv	GGACGAGACACGTAGAGTTATACCAATGTG
JD335	At4g22220 BP fw	GGGGACAAGTTTGTACAAAAAAGCAGGCTCTGAATACACCCCCGACTCTTATTG
JD336	At4g22220 BP rv	GGGGACCACTTTGTACAAGAAAGCTGGGTGAGCCTGTGTGGTTTCTCCTGCTGCTG
JD337	GABI_424D02 LP	TTGATGGTCAGAACATCCTCC
JD338	GABI_424D02 RP	ATCTAGACGAAGACATTGCGC
JD368	pEC1-Cas9 fw	aattGAATTCgaataaaagcatttgcgtttggtt
JD369	pEC1-Cas9 rv	aattTTAATTAACCTAGGgttgtcaatcaattggcaagtc
JD460	CR-At5g04560 fw	GGAGAATCAAACCTCAACAAGAGTTC
JD461	CR-At5g04560 rv	GGAGAAGTCACCTCACTCCTGC
JD575	At2g21650 fw	ACATCTTTTGACGTTTTATACCCTT
JD576	At2g21650 rv	CGTCTGAAATGAGGAGTGGCT

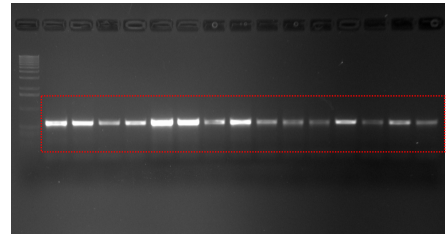
1B



2B

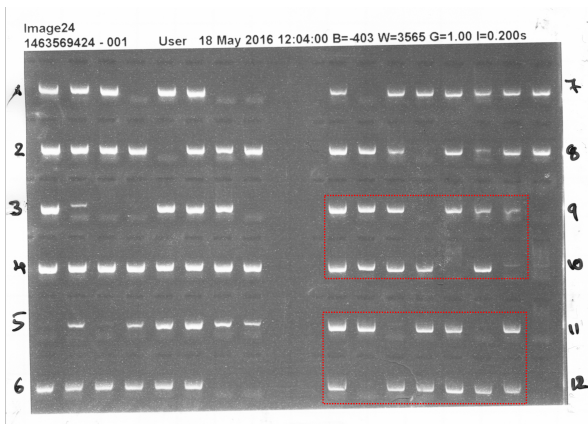


deletion



At5g60390

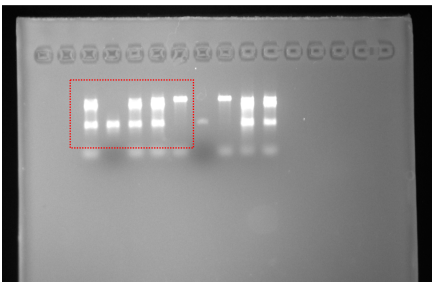
2F



isu1-d1/ISU1-YFP.A8

isu1-d1/ISU1-YFP.E3

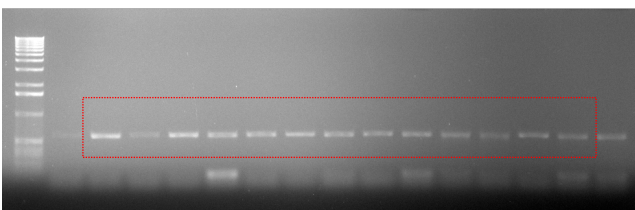
3B



4B



deletion



At5g60390