

**Table S3.** Primer design of transgenic plants generation and detection

Gene name	Primer Sequence (5'-3')
	Forward:
pSAK277- <i>ZjTCP16</i>	TCCAAAGAATTCCCCGGTACCATGGGGGAGAGCCACCACCAA
	Reverse:
	ATGATCTTTGTAATCCTCGAGATGGCGAGAATCAGAGGA
SAK	Forward: CATCGAAAGGACAGTAGAAAAGG
	Reverse: CATTAGAATGAACCGAAACCG
Cas9- <i>zjtcp16</i>	Forward: TGCAAACCTCGACGATCTCCCCC
	Reverse: AAACGGGGGGGAGATCGTCGAGGTT
Cas9	Forward: TGTCCCAGGATTAGAATGATTAGGC
	Reverse: TATTG GTTTA TCTCA TCGGA ACTGC
Off-target site1	Forward: TGGGAAGCCAAGTAATCGCATAGAT
	Reverse: TAACCATCCACGTCGTCACCGTTC
Off-target site2	Forward: AGCCCCAAAATGGTGGAGGAGGAGCTACT
	Reverse:
	ACCCAAATACTCTGCCGCAACTACAGAATACCTCGATCC
	Forward: ACTACATGTCTCTGCTGCCG
Off-target site3	Reverse:
	GGGAGTGAGATAATGGCCCAGAGTCTTACAAATTACC