

Target Gene	Construct	Line	Target Position	Mutation Zygosity	Genotype	Effect
nCBP-1	BS01	1	133	Homozygous	d3	Frameshift
		3	133	Chimeric	d4, i1, d1, d2	Frameshift, Frameshift, Frameshift, Frameshift
		4	133	Bi-allelic	d3, d9	Frameshift, Frameshift
		5	133	WT	WT	No effect
		6	133	Homozygous	i1	Frameshift
		7	133	Chimeric	d4, d1, d19, d34i16	Frameshift, Frameshift, Frameshift, Frameshift
		2	2677	WT	WT	No effect
	BS03	3	2677	Homozygous	d9	Frameshift
		4	2677	Bi-allelic	i3d2, i1	Frameshift, No effect
		5	2677	Homozygous	i1	No effect
		6	2677	Homozygous	d1	Frameshift
7		2677	Bi-allelic	d3, i1	1 AA deleted and 1 AA changed, No effect	
8		2677	Bi-allelic	d12, i1	Frameshift, No effect	
9		2677	Homozygous	i1	No effect	
10		2677	Bi-allelic	d93i2, d2	Frameshift, Frameshift	
11		2677	Bi-allelic	d5, d1	Frameshift, Frameshift	
nCBP-2		BS02	1	148	Chimeric	d3, d6, d7, i2d8
	2		148	Bi-allelic	d5, d2	Frameshift, Frameshift
	4		148	Bi-allelic	i4d127, i8d20	Frameshift, Frameshift
	5		148	Chimeric	d17, d52, d1, i2d4	Frameshift, Frameshift, Frameshift, Frameshift
	6		148	Homozygous	d1	Frameshift
	7		148	Bi-allelic	d1, d17	Frameshift, Frameshift
	1		2763	Heterozygous	WT, i1	No effect, Frameshift
	BS04	2	2763	Bi-allelic	i1, d7	Frameshift, Frameshift
		3	2763	Chimeric	i1, d7, d4	Frameshift, Frameshift, Frameshift
		4	2763	Bi-allelic	d4, i1	Frameshift, Frameshift
		5	2763	Bi-allelic	d2, d6	Frameshift, 2 AA deletion
		6	2763	WT	WT	No effect
		8	2763	Homozygous	i1	Frameshift
		9	2763	Bi-allelic	d2, d7	Frameshift, Frameshift
		10	2763	Bi-allelic	i1d8, d2	Frameshift, Frameshift
		11	2763	Bi-allelic	d2, i1d10	Frameshift, Frameshift
12		2763	Bi-allelic	d5, d11	Frameshift, Frameshift	
nCBP-1/2	BS05	1	148	Bi-allelic	d7, d1	Frameshift, Frameshift
		1	133	Bi-allelic	d2, d4	Frameshift, Frameshift
		2	148	Homozygous	d11	Frameshift
		2	133	Homozygous	i1	Frameshift
		3	148	Bi-allelic	i1, d1	Frameshift, Frameshift
		3	133	Bi-allelic	d1, d5	Frameshift, Frameshift
		4	148	Bi-allelic	d5, d4	Frameshift, Frameshift
		4	133	Bi-allelic	d2, d1	Frameshift, Frameshift
5		148	Bi-allelic	i1, d6	Frameshift, Frameshift	
5		133	Bi-allelic	d4, d9	Frameshift, Frameshift	
6		148	WT	WT	No effect	
6		133	WT	WT	No effect	
7		148	Bi-allelic	i1, d15	Frameshift, Frameshift	
7		133	Bi-allelic	d3, d5	Frameshift, Frameshift	
8		148	Homozygous	d1	Frameshift	
8		133	Bi-allelic	d3, d1	Frameshift, Frameshift	

Table S1. Genotypes of all transgenic T₀ cassava lines.

WT, wild-type alleles; bi-allelic, two different mutated alleles; heterozygous, wild-type and mutated alleles; chimeric, more than two mutated alleles. d# and i# refer to deletions and insertions, respectively, with the number of bases mutated denoted by #. Highlighted transgenic events were used in CBSV/UCBSV challenge assays.