

Table S1. sgRNA design table.

	20-nt gRNA (NGG) (5'-3')	gRNA position	Edited gene
SgRNA1	GTCTCCTGCCTCGAAAGAGC(CGG)	-799 to -780	<i>RkACS1</i>
SgRNA2	CTGCCAGTACGTGTCGACGA(CGG)	-2189 to -2170	<i>RkACS1</i>
SgRNA3	GAAGAGGTTGCAGATCTGTG(CGG)	-1960 to -1941	<i>RkACS2</i>
SgRNA4	GACGGCGTGCTCAACCCGGG(CGG)	+2481 to +2500	<i>RkACS2</i>

Table S2. Primer pairs for PCR validation

	Primer sequence (5'-3')	Primer position
RkACS1-F1	ATGACCGAACACACCTACGAC	+1 to +21
RkACS1-R1	CTACGCCTTGCGAACTT	-3055 to -3038
RkACS1-R2	CAGTACCACTCCCAAGCCTC	-2140 to -2121
RkACS2-F1	ATGGCCCCGACGTCTAC	+1 to +17
RkACS2-R1	CTACAGCTTCGCCTTGACG	-3036 to -3018
RkACS2-R2	CCTGAAGGTCCATCCCCAAC	-2033 to -2014

Table S3. Primer pairs used for quantitative real-time PCR.

Gene	Primer sequence (5'-3')	
<i>SSU rRNA</i>	F: CCATTCACTTACAAACACAA	R: CACCACCAGATTCATAA
<i>ACS1</i>	F: CGTCGAGCTGTACAAGGAGT	R: AACCAGTGTACGTCTCCTGC
<i>ACS2</i>	F: ACCTCGATGCGTTCTGGA	R: AGCATGTTCTCGGCGTAGTT
<i>HMGCR</i>	F: CATTGTCACCGTCTTCTG	R: GTCGTCGTAGAGGAGGAA
<i>IPI</i>	F: GACTTTGCCTACCTTACC	R: TGAGGAAGAGGATGTAGT
<i>CrtYB</i>	F: GTTCTTCTTGTGGGAGTG	R: CCGCTTCTTCAATCTCAA
<i>CrtI</i>	F: GAGAAGGGTTTCGAGGGCTT	R: ATGGAGAGGAGCGAGGTGAA
<i>FAS1</i>	F: ACACTACAACGAGAAGGCCG	R: CGCTGGTTGATGTAGAGGCA
<i>ACCS</i>	F: GCACGACCGAGTTCCTCTAC	R: GTTGACGCCCCGAAACCATTT
<i>ACOX2</i>	F: ATTCACGACCTCACCAAGGC	R: CACTCCATATCGCGTCCAGA
<i>ACAA1</i>	F: GTCGAGTCGATGACCCAAGG	R: ACGTTCTCGCTCGTGATACC