

**Table S2. DNA PCR primers used in this study.**

Function	Target	Primer Number	Sequence
Real-time PCR	PCK1	CNI03590 For	CCGAAAAAGAACCCGAGAT
		CNI03590 Rev	TAACCAGCGACGAAGTGGTA
	FBP1	MP0098	CGAGAGGGGATTTTGATAG
		MP0099	GGCACCTACTGTGTTGTCTT
	ACS1	MP0104	GTTTTAGTGCCGAGAGTTTG
		MP0105	CCAGAGGTGTAGAGGATGAA
Gene deletion/reconstitution	PCK1	PCK1ko#1F	TACGGACGGAGGAAAGAATG
		PCK1ko#3R	AGCTCACATCCTCGCAGCGATGACTGTTGTGGGCATTG
		PCK1ko#2F	CAATGCCCAACAACAGTCATCGCTGCGAGGATGTGAGCTGG
		PCK1ko#5R	ATGACCAGACAAAGGGTGGAGAAGAGATGTAGAAACTA
		PCK1ko#4F	TAGTTTCTACATCTCTTCTCCACCCTTTGTCTGGTCAT
		PCK1ko#6R	AACTCACGTTTCGCCATATCC
	PYK1	PYK1ko #1F	GCCACTTCACACTCACAATCA
		PYK1ko #3R	CCAGCTCACATCCTCGCAGCTTTGGGGAGGATAATGTCCA
		PYK1ko #2F	TGGACATTATCCTCCCCAAAGCTGCGAGGATGTGAGCTGG

		PYK1ko #5R	CTCATGTGCGCACAAATGACCGAAGAGATGTAGAACTA
		PYK1ko #4F	TAGTTTCTACATCTCTTCGGTCATTTGTGCGACATGAG
		PYK1ko #6R	GGCTGCACTACGTTGTACGAT
HXK1	MP0037		AAGGGGATTGATTACGTTTT
	MP0038		GTCATAGCTGTTTCCTGAGGAAGAAGGAAGCAGAGAT
	MP0054		ATCTCTGCTTCCTTCTTCCTCAGGAAACAGCTATGAC
	MP0070		CTGGCCGTCGTTTTACCTGCAGTCCTTTGAGAAG
	MP0071		CCAACCGACGTACATAGA
	MP0072		CTTCTCAAAGGACTGCAGGTAAAACGACGGCCAG
Southern analysis of transformants	NEO	Neo probe F	TATGTCCTGATAGCGGTCCG
		Neo probe R	AAGATGGATTGCACGCAGG
	PCK1	PCK1 probe F	CCCTCTTCATGGTAAGTCAA
		PCK1 probe R	AATGCAAAAGGTGATATTGG
	PYK1	MP0056	CAGTGTTGACATGATCTTCG
		MP0057	TAGGCGATAGAAGACTCAGC