

Supplementary material

Table S1. The putative PFK genes from monocot and dicot for phylogenetic tree

sugarcane	<i>Sorghum bicolor</i>	<i>Oryza sativa</i>	<i>Arabidopsis</i>	<i>Vitis vinifera</i>
Gene name	Gene ID	Gene ID	Gene ID	Gene ID
ScPFK1	Sb01g022370	Os10g0405600	At2g22480	Vv01002583001
ScPFK2	Sb07g021500	Os08g0439000	At4g26270	Vv01003611001
ScPFK3	Sb02g024680	Os09g0415800	At4g29220	Vv01003613001
ScPFK4	Sb06g019610	Os04g0469500	At5g47810	Vv01011393001
ScPFK5	Sb09g026150	Os05g0524400	At5g56630	Vv01015271001
ScPFK6	Sb03g034060	Os06g0151900	At4g32840	Vv01035322001
ScPFK7	Sb03g003140	Os01g0191700	At5g61580	Vv01013938001
ScPFK8	Sb01g004810	Os05g0194900		
ScPFK9	Sb09g006030	Os09g0479800		
ScPFK10	Sb10g003650			

Table S2. Primers used for verifying the PFK gene family in sugarcane

Gene name	Forward primer	Reverse primer
ScPFK1	GCTGGTTCGATTAGTTCAGG	CATCATTACATAGCCGTTT
ScPFK2	AGTTTTCTTGGTGTTCCTCG	CTGAAACCTTCAGCTTTCTC
ScPFK3	ATGTGATACTTAGTGACTTTGGTG	ACTGATGTCCTTGAAATGCT
ScPFK4	GGTGGCCTGTTTGAGTTTCTG	CTAACCCATGCCCATTTGTG
ScPFK5	AGCCACATCAGATCAACAAG	TGAAGTTATACCTGCCATT
ScPFK6	GACTTTTCCTAATCCTTTGC	CTCTGATGACAGTATTGAGCC
ScPFK7	AGCTTGTTTGCGGGTTGTAT	AGTGTCATGCCCTCCTCTTG
ScPFK8	GGCCGGAACAGTGGCTTCAT	AGGCGTGCCTACCGTTGACC
ScPFK9	AACGTCTACTGCACGCTGCTG	CATTGCAGAGGTGGCCATTG
ScPFK10	GGAGGCCATGACACCGTGAA	TGCCAGCAACAGAACTTTGAGAC

Table S3. Primers used for RT-qPCR analysis of PFK genes family expression in *Saccharum*

Gene name	Forward primer (5'-3')	Reverse primer (5'-3')
<i>Sc</i> PFK1	GCTTCAGCTTGCCACACTTGA	GCCGTTCCATGATTCTTGCAT
<i>Sc</i> PFK2	TTCTCGCGGTGGAGCTAAAAC	TGCCGTTTCCACCAAGTACAA
<i>Sc</i> PFK3	GCAGGGCAGGATTACTGCAA	CAGATGCATTTGCACGACAGG
<i>Sc</i> PFK4	GGTGGCTTCGATCTCGGCAAG	GGCGTTTGAAGTCTTCAAAGATTGC
<i>Sc</i> PFK5	GTGGGGATGGTCAATGGAAGAC	GAAACTTGGCTGGTTGGTGGAC
<i>Sc</i> PFK6	CCTTTGCCCTGGGCTCAATAC	GCCACCTCGTGATGTTCCAAG
<i>Sc</i> PFK7	GTCACCAGCGTTGTTGGCATAG	TCCAAGGACAGTCCCACCTCTC
<i>Sc</i> PFK8	GAACGGCAGGCACGCCTACATC	ACGGCTGGTTGGTCGAGCACA
<i>Sc</i> PFK9	TCACCGACTACCTTCCCGAGCT	TGACGACAGAGTAGGCAGGGTGG
<i>Sc</i> PFK10	AATGCTGCTCATGTGGAAGCTG	TGGTGATTCTGGGATCAAGCAA
GAPDH	CCACCCATGGCAAATTCCATGGCA	TCTAGACGGCAGGTCAGGTCCACC