Supplementary Table S1 Sequences of primers used for full-length amplification, real time PCR and vector construction

Gene name	Forward primers (5´-3´)	Reverse primers (5´-3´)	Accession NO.
Actin	GTGCTCAGTGGTGGTTCAA	GACGCTGTATTTCCTCTCAG	Achn107181
AchnKCS-Full	ATGGCTGATGAAAACAGACCAAAAC	TCAAGAAACAATTTGTGTCACTTTAGG	Achn030011
AchnKCS-GFP	CGAGCTCATGGCTGATGAAAACAGACCAAAAC	GTCGACAGAAACAATTTGTGTCACTTTAGG	
AchnKCS-RT	GTGGCAGGTGAAGCCCTAAA	GGCTGGTGTGGCTGTAGGCAT	
AchnKCS-Pro	AAATGTAGGGGGCAAATTGA	TGACTCGGCCCATTAACGAC	
AchnKCS-Pro-Y1H	TCCCCCGGGAAATGTAGGGGGCAAATTGA	ACGCGTCGACTGACTCGGCCCATTAACGAC	
AchnKCS-Pro-LUC	GTCGACGGTATCGATAAGCTTAAATGTAGGGGGCAAATTGA	CGCTCTAGAACTAGTGGATCCTGACTCGGCCCATTAACGAC	
*AchnbZIP*12-*Full*	ATGGAATCTCAAGGTGGTGG	TCAAACACCAACAGACAGACATTC	Achn270881
*AchnbZIP*12-*GFP*	CGAGCTCATGGAATCTCAAGGTGGTGG	GTCGACAACACCAACAGACAGACATTC	
*AchnbZIP*12-*RT*	GGTGGTTGCTGAATCATCTT	TGCTCCTGCATCCATTATTG	
*AchnbZIP*12-*AD*	GGAATTCATGGAATCTCAAGGTGGTGG	CGAGCTCTCAAACACCAACAGACAGACATTC	
*AchnbZIP*12-*SK*	GCGGCCGCTCTAGAACTAGTGATGGAATCTCAAGGTGGTGG	GGTCGACGGTATCGATAAGCTTCAAACACCAACAGACAGAC	
HDEL	ATGGCTACTCAACGAAGG	TTACAGTTCATCGTGCG	LOC107814655
HDEL-mcherry	CGAGCTCATGGCTACTCAACGAAGG	GCTCTAGACAGTTCATCGTGCGCTGC	

Note: Accession NO. from Cornell University kiwifruit protein database and National Center of Biotechnology Information (NCBI) database.

Figure S1. Molecular cloning of *AchnKCS* gene. Lane 1: DNA marker (D2000); Lane 2, 3: PCR amplification product of *AchnKCS.*

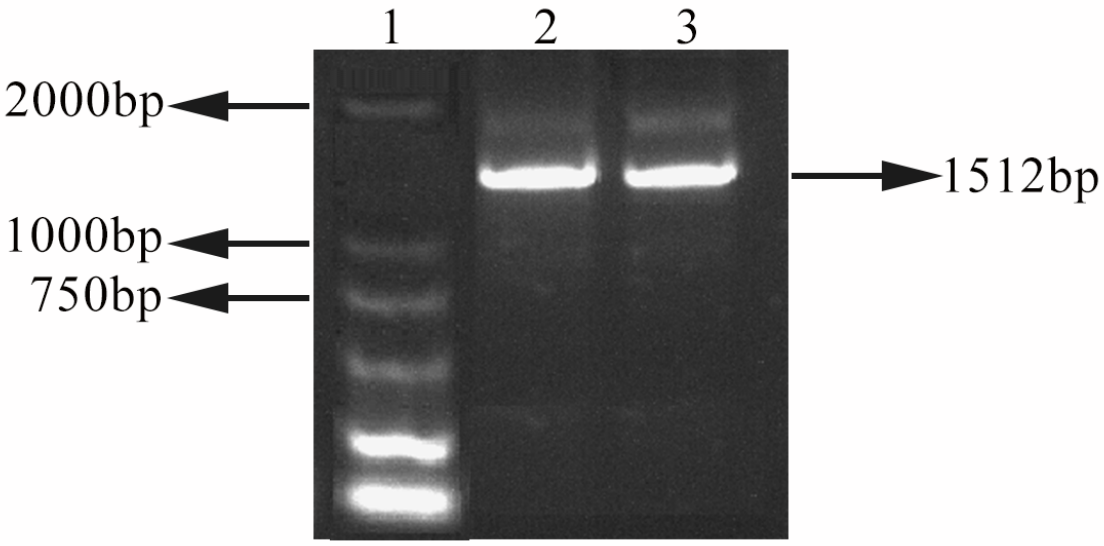

Figure S2. Phylogenic analysis of AchnKCS protein from kiwifruit (Achn, *Actinidia chinensis*) with KCSs from tomato (Sl, *Solanum lycopersicum*), potato (St, *Solanum tuberosum*), tobacco (Nt, *Nicotiana tomentosiformis*) and Arabidopsis (At, *Arabidopsis thaliana*). The identification number from the Cornell University kiwifruit database or National Center of Biotechnology Information (NCBI) database was in the brackets.

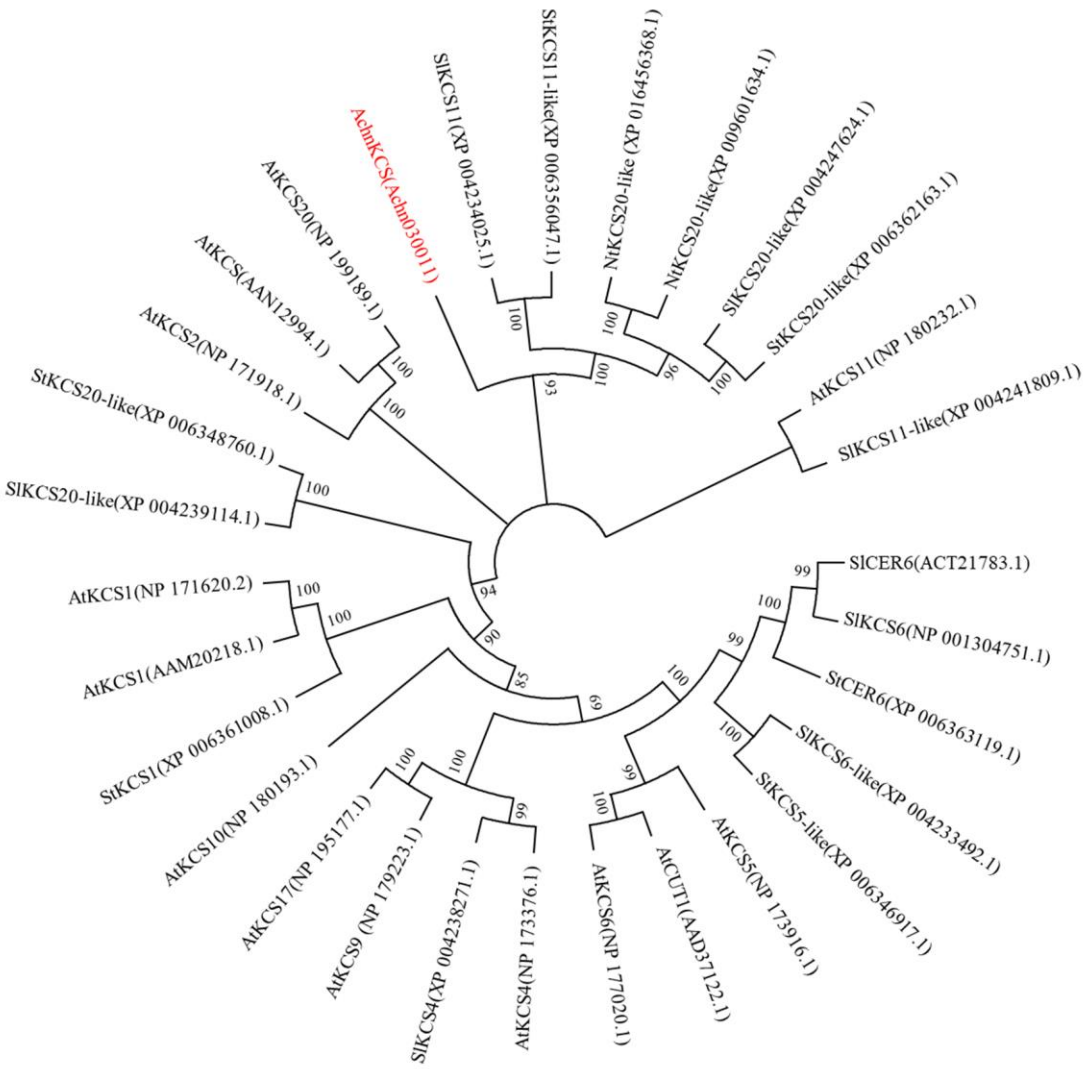
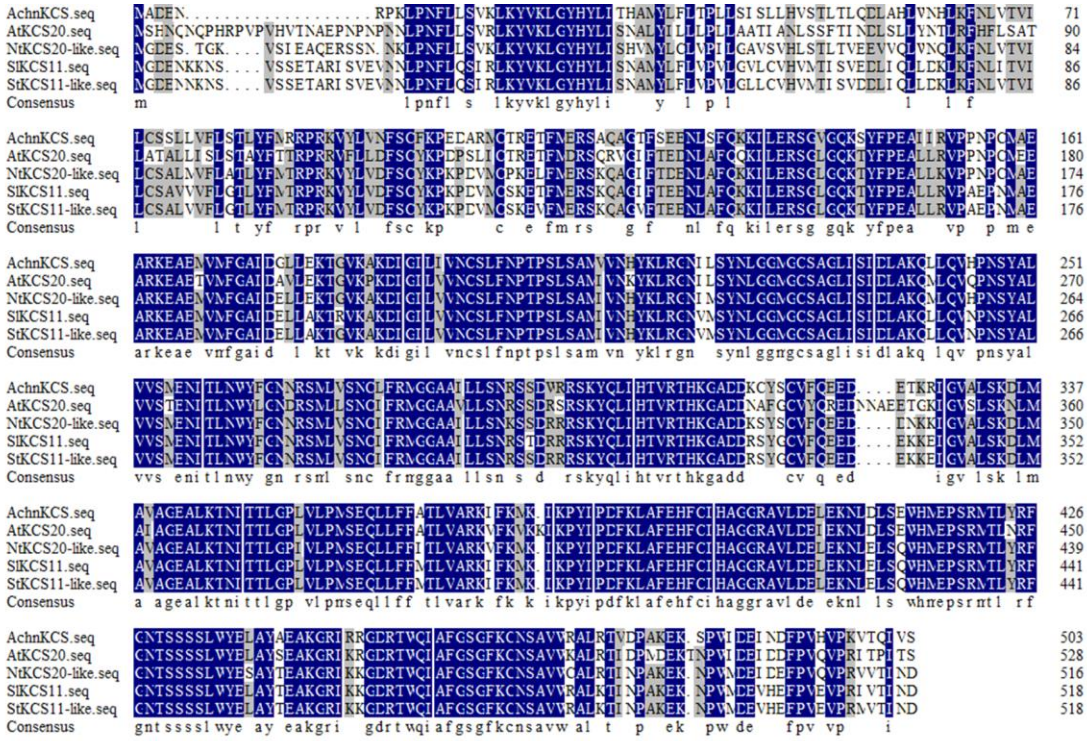
Figure S3. Amino acid sequence homologous alignment of AchnKCS protein from kiwifruit (Achn, *Actinidia chinensis*) with KCSs from tomato (Sl, *Solanum lycopersicum*), potato (St, *Solanum tuberosum*), tobacco (Nt, *Nicotiana tomentosiformis*) and *Arabidopsis* (At, *Arabidopsis thaliana*).