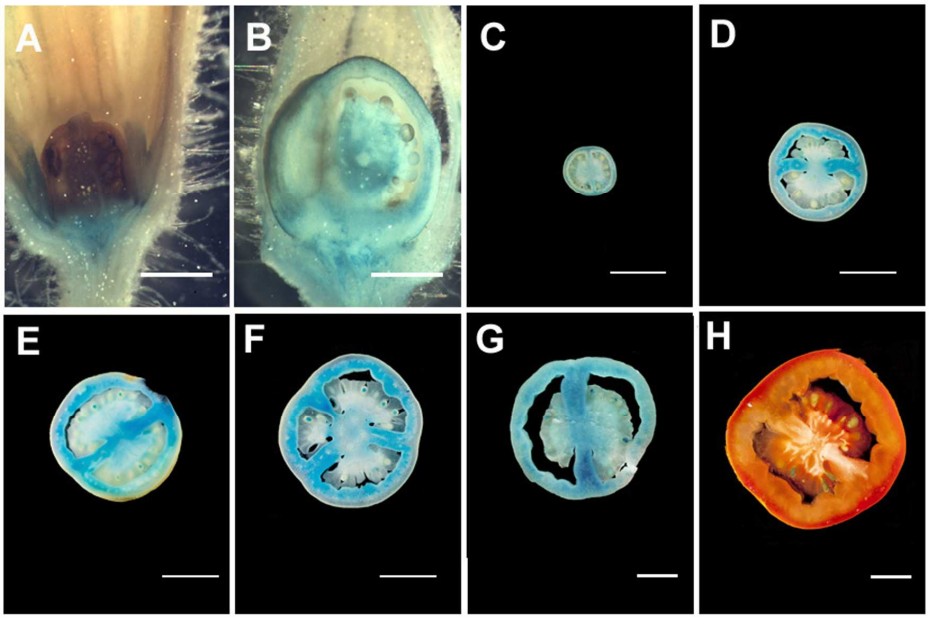
Supplemental table 1: Sequences of the primers used for RT-PCR

Table2.

Gene name or number	**Primer sequences**
TOM 51	5’- GCTGTGCTTTCCTTGTATGC-3’ 5’- TCACACCATCACCAGAGTCC-3’
LeACT 2/7 (actin 2/7)	5’-GGACTCTGGTGATGGTGTTAG-3’ 5’- CCGTTCAGCAGTAGTGGTG-3’
Le S18	5’- AGACGAACAACTGCGAAAGC -3’ 5’- AGCCTTGCGACCATACTCC-3’
Le CDKA1	5’-AACCCCTGAATAGAACCAAATG-3’ 5’-GTATGTGCCGTGATTGTCTG-3’
Le CDKB1	5’-ATGGAGAAATACGAGAAATTGGAG-3’ 5’-ACGATGTAGAGAGAATGAGATAGC-3’
Le CDKB2	5’-ATGCTGGTAAGAGTGTATCGG-3’ 5’-CGGAGAGTAGTTGGAGGAAC-3’
TPRP-CDKB1 forward	5'-TCATTATATTTAACAATCCCACTTGATG-3'
TPRP-CDKB1 reverse	5'-ACAGTGAAATATGAAAGTGACAAG-3'
TPRP-CDKB2 forward	5'-TACATATTACATACCTAACTCAAGCATC-3'
TPRP-CDKB2 reverse	5'-CGGAGAGTAGTTGGAGGAAC-3'

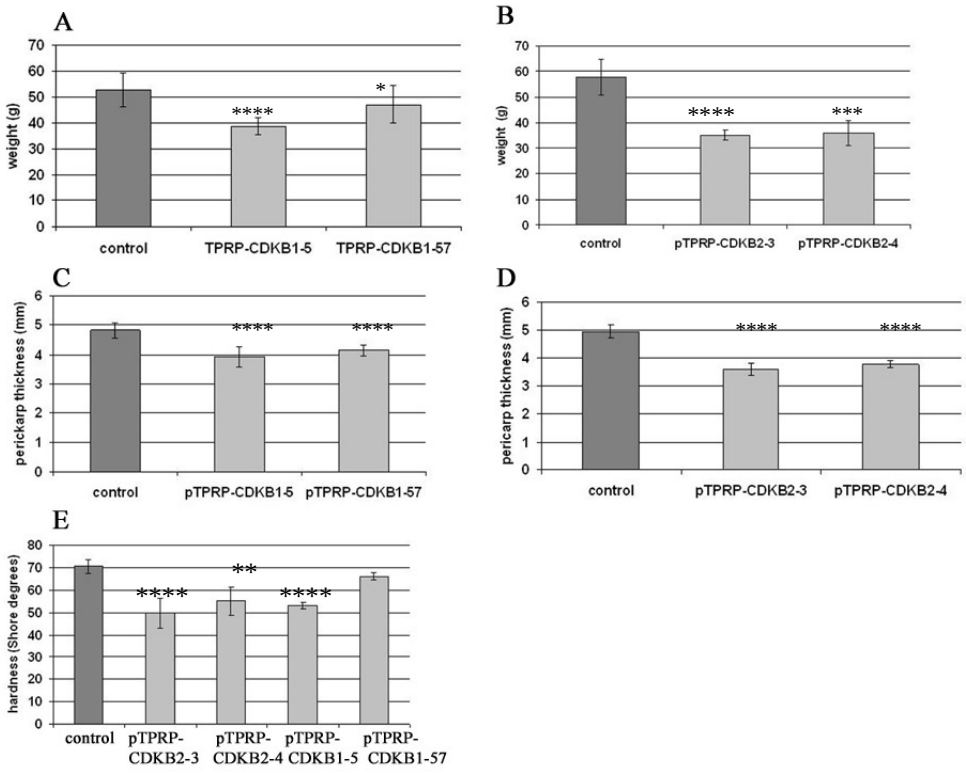
Supplemental Figure 1. Expression of the uidA (GUS) reporter gene in tomato fruits transformed with the *pTPRP:GUS* vector.



(A) Ovary in a flower bud before pollination. Bar = 1 mm
(B) Ovary 1 day after pollination. Bar =1 mm
(C) to (H) Different development stages of a representative line expressing the pTPRP:GUS construct. Bars = 1 cm.

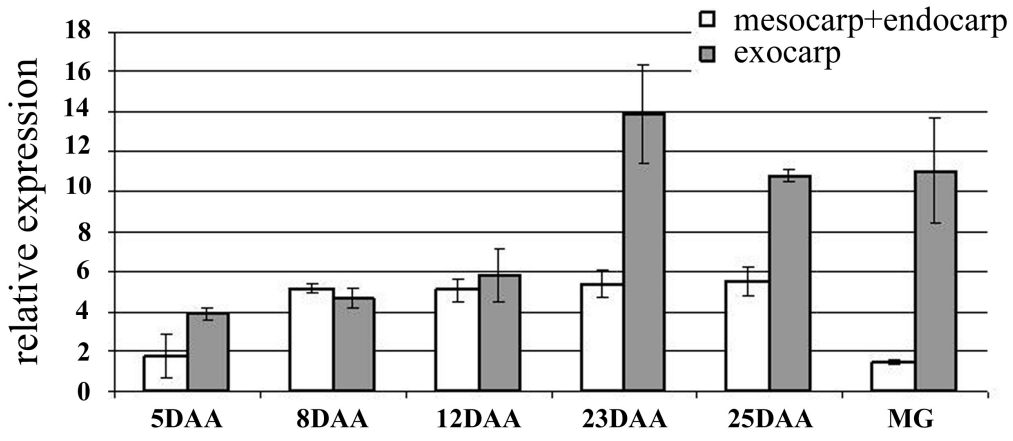
GUS staining was done for 3 hours.

Supplemental Figure 2. Postharvest characteristics of the fruits with *CDKB1*and *CDKB2* overexpression.

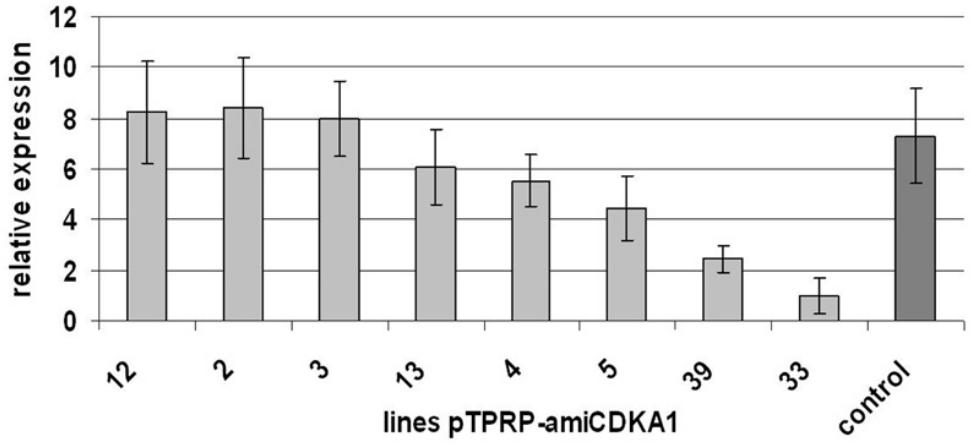


A , Mean weight of fruits from pTPRP-CDKB1 lines;B, Mean weight of fruits from pTPRP-CDKB2 lines; C, Pericarp thickness of fruits from pTPRP-CDKB1 lines; D, Pericarp thickness of fruits from pTPRP-CDKB2 lines; E, Firmness of fruits from pTPRP-CDKB2 and pTPRP-CDKB1 lines,Data are means of 10-12 ripe fruits from each plant ± SD. Significant reduction of the parameter in the transgenic fruit compared to wild-type fruits is indicated with an asterisk ****P<0.0001, ***P<0.0005,** P<0.005, *P<0.02, no asterisk P<0.17

Supplemental Figure 3. Relative expression of CDKA1 in pericarp tissues of wild-type tomato M82 cultivar in different developmental stages. Bars are means of two biological replicas, each containing 3 different fruits.

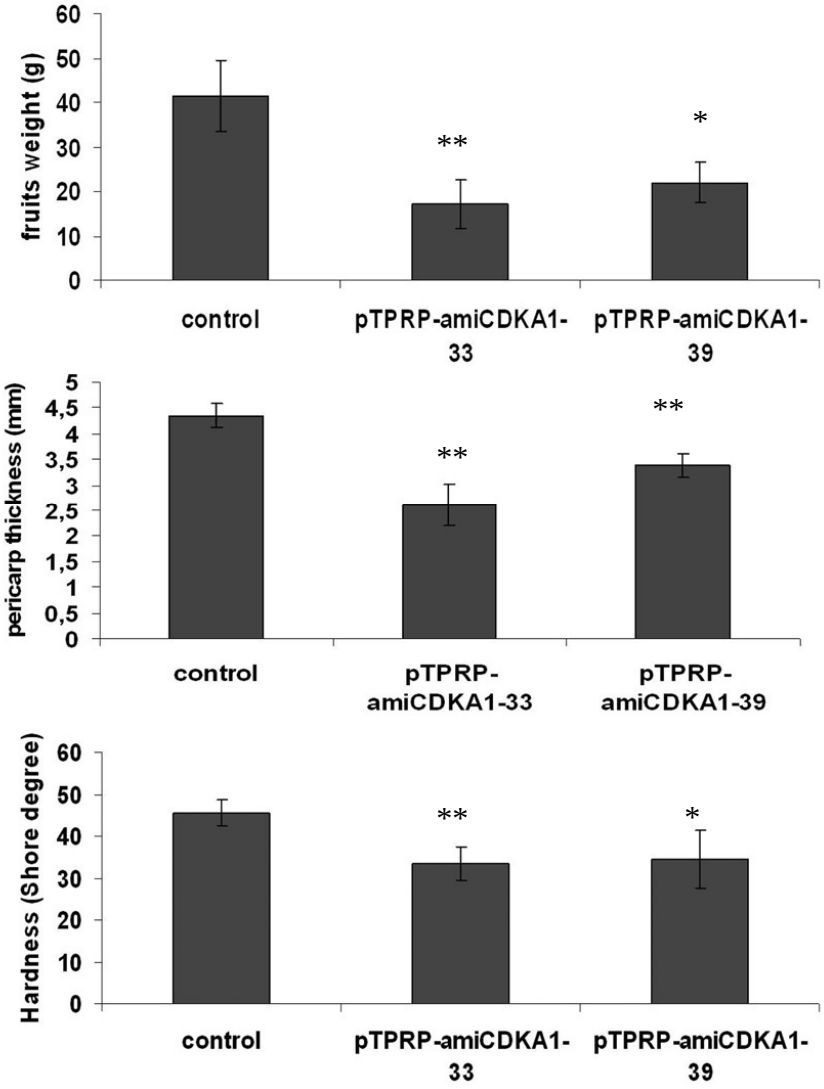


Supplemental Figure 4. Down-regulation of *CDKA1* in pTPRP:ami-CDKA1 transgenic lines.



Fruits of the primary transformants (variety Ida Gold) were harvested at the mature green stage and the expression was determined by Q-RT-PCR analysis. Two biological replicates were taken and the standard deviation is indicated by a thin line. Transgenic lines #5, # 39 and #33 show a significant reduction in expression compared to control wild type fruits

Supplemental Figure 5. Characteristics of pTPRP-amiCDKA1 lines.



Data are means of 10-12 ripe fruits from each plant ± SD. Significant reduction of the parameter in the transgenic fruit compared to wild-type fruits is indicated with an asterisk * $P<0.002$ ** $P<0.0001$