Supplementary Material

The role of EjSOC1s in flower initiation in *Eriobotrya japonica*

Yuanyuan Jiang¹, Jiangrong Peng¹, Yunmei Zhu¹, Wenbing SU¹, Ling Zhang¹, Yi Jing², Shunquan Lin¹* and Yongshun Gao¹*

*Correspondence:*

Corresponding Author: loquat@scau.edu.cn; yongshungao@163.com

Table S1. Primers used for gene cloning.

| Primer name  | Sequence (5’-3’)          |
|--------------|---------------------------|
| *EjSOC1*-1-FP| ATGGTGAGAGGAAAAACTC       |
| *EjSOC1*-1-RP| CTAGCGCCTCGCCCTACTTTC     |
| *EjSOC1*-2-FP| ATGGTGAGAGGAAAAACTCAG     |
| *EjSOC1*-2-RP| CTAGCGCCTAGCTCTACTTTC     |

Table S2. Primers used for the analysis of gene expression by qPCR.

| Primer name  | Sequence (5’-3’)          |
|--------------|---------------------------|
| β-actin-FP   | GGATTTGCTGGTGATGATGC      |
| β-actin-RP   | CCGTGCTCAATGGGATACTTT     |
| *EjSOC1*-1-FP| GCGTTATCAGAAGCATGCGAAAGA |
| *EjSOC1*-1-RP| GCTCGGACGTGTAGACGCTC      |
| *EjSOC1*-2-FP| GAGCGATATCGAATACGC       |
| *EjSOC1*-2-RP| GGATCGGACGTGTACGC       |
| *EjSOC1*-1-RT-FP| ATGGTGAGAGGAAAAACTC    |
| *EjSOC1*-1-RT-RP| GCGCCTCGCCTTACTTTC     |
| *EjSOC1*-2-RT-FP| ATGGTGAGAGGAAAAACTCAG   |
| *EjSOC1*-2-RT-RP| GCGCCTAGCTCTACTTTC     |
| *EjAP1*-1-FP | TGATGCTCAAGTTGTGCTTGG    |
| *EjAP1*-1-RP | TGCATGAATCTGTGGCGTAC     |
Table S3. Primers used for vector construction.

| Vector Name | Primer name | Sequence (5’-3’) |
|-------------|-------------|-----------------|
| 35S:EjSOC1-1-HA/ | EjSOC1-1-HindIII | GTCGACGGTATCGATAAGCTTATGGTGAGAGGAAAAAC |
| 35S:EjSOC1-1-GFP | EjSOC1-1-EcoRI | TCCCCCGGCTCGAGGATCGCTGCCTGAGAACCTCTT |
| 35S:EjSOC1-2-HA/ | EjSOC1-2-HindIII | GTCGACGGTATCGATAAGCTTATGGTGAGAGGAAAAAC |
| 35S:EjSOC1-2-GFP | EjSOC1-2-EcoRI | TCCCCCGGCTCGAGGATCGCTGCCTGAGAACCTCTT |

Figure S1. The picture of awning.
**Figure S2.** The nucleotide and deduced protein sequences of EjSOC1-1 and EjSOC1-2.
Figure S3. Leaves of different maturities in the same period. L1, L2, L3, L4, L5, L6 and L7 were taken from leaves of different maturities on June 9th, ‘L6’ indicated in maturity stage of leaves.
Figure S4. Different flower parts. (A) Different maturities flowers. The flower selected in the red frame is the experimental material. (B) Different flower parts.
Figure S5. Relative expression levels of *EjSOC1s*, *AtAPI1* and *AtLFY* in the transgenic plants. (A) Showed the RT-PCR results of *EjSOC1s* in ten-day-old transgenic plants. (B) Expression of *EjSOC1s* in ten-day-old and twenty-day-old Col and 35S:*EjSOC1*-HA transgenic plants. (C) Expression of *EjSOC1s* in ten-day-old and twenty-day-old Col, *soc1-2* mutant and 35S:*EjSOC1s*-HA/+ *soc1-2* transgenic plants. (D) Expression of *AtAPI1* in ten-day-old and twenty-day-old Col and 35S:*EjSOC1s*-HA transgenic plants. (E)
Expression of \textit{AtLFY} in ten-day-old and twenty-day-old Col and \textit{35S:EjSOC1s-HA} transgenic plants. (F) Expression of \textit{AtAP1} in ten-day-old and twenty-day-old Col, \textit{soc1-2} mutant and \textit{35S:EjSOC1s-HA/+ soc1-2} transgenic plants. (G) Expression of \textit{AtLFY} in ten-day-old and twenty-day-old Col, \textit{soc1-2} mutant and \textit{35S:EjSOC1s-HA/+ soc1-2} transgenic plants. Error bars indicating SD from three biological replicates.