

Fig. S1 The gel electrophoresis detection of *PbCOP1s* overexpression vector

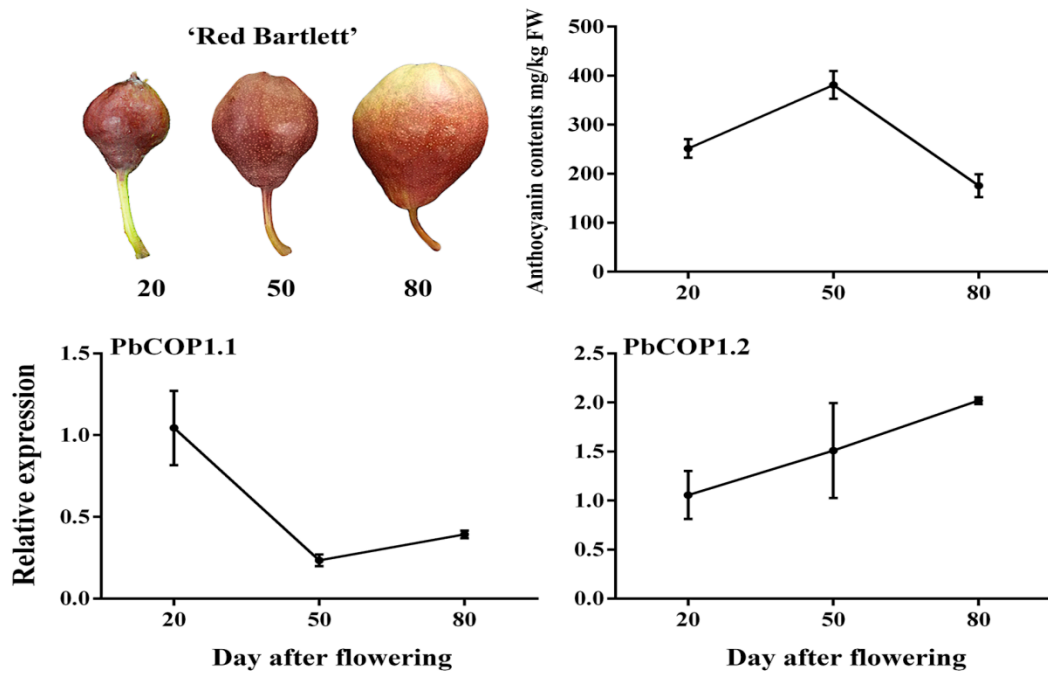


Figure S2. Anthocyanin content and *PbCOP1s* expression levels of 'Red Bartlett' at different stages of fruit development. Data are mean  $\pm$  SE of three biological replicates.

**Table S1 The primer sequences used for overexpression-vector construction and real-time PCR**

| Gene name       | Forward primer sequence                       | Reverse primer sequence                             |
|-----------------|---|---|
| <i>PbCOP1.1</i> | 5'-CAATGGGTGGTGCCTGGTC-3'                     | 5'-GAGGAAGGCGTCTCTGATGAT-3'                         |
| <i>PbCOP1.2</i> | 5'-CGGTTATGGAATGTGAGGGATAA-3'                 | 5'-TTTATGCCAAGTCACAGTTTAGAG-3'                      |
| <i>PAL</i>      | 5'-TCCATGGACAACACTCGCTT-3'                    | 5'-AGAAACTGCAGCTCGGAACA-3'                          |
| <i>CHS</i>      | 5'-ACTGTCGAGGAAGTTCGCAA-3'                    | 5'-CGGGATATGTGGCTTGATCC-3'                          |
| <i>CHI</i>      | 5'-ATCGAGGGCAAGTTGGTGAA-3'                    | 5'-CCTGTGACGACGTCCTTGAT-3'                          |
| <i>F3H</i>      | 5'-TGGGTTCTGGAATGTGGCTATGGA-3'                | 5'-TGGGAAGACATGGATCACC GTTCA-3'                     |
| <i>DFR</i>      | 5'-GATTCATCACCATTATCCCAACTC-3'                | 5'-TGCCAACCTTGACATCAACGAG-3'                        |
| <i>ANS</i>      | 5'-AGCTTCAACACCAAGTGCAAGCTC-3'                | 5'-TTGGATGAAGGGAGGCTGGAGAAA-3'                      |
| <i>UFGT2</i>    | 5'-GGACTATCGGAACTCAAGG-3'                     | 5'-AGGTCGAGTCTCTCGAAACAG-3'                         |
| <i>MYB10</i>    | 5'-TCATCGACAAAAGAATGGAA-3'                    | 5'-CTAACTGAAGGCTGGGACA-3'                           |
| <i>MYB10b</i>   | 5'-AGATTCACAGAGGACGAA-3'                      | 5'-CCCCTAACCTAACTAGA-3'                             |
| <i>bHLH3</i>    | 5'-ACTTCGGCAGTGGCGTTC-3'                      | 5'-TCACATTCTCGCGTTCAGCAA-3'                         |
| <i>bHLH33</i>   | 5'-GTGATGCAAACACTTAGGGAGC-3'                  | 5'-TTGCCACTCACGTTATCCTTCA-3'                        |
| <i>HY5</i>      | 5'-GCGGCTGAAGAGTTGTTGAG-3'                    | 5'-AGCATCTGATTCTCATTCTGCAAAG                        |
| <i>GST</i>      | 5'-AAGTATGCAGGCCGTGGTC-3'                     | 5'-CAGGTCGTTGAAGTTGTGGC-3'                          |
| <i>PHYB</i>     | 5'-ACCACAACACGGAGTCTATGAGC-3'                 | 5'-GAATCTTTGGTGGTTTTCATGCT-3'                       |
| <i>ACTIN</i>    | 5'-CCATCCAGGCTGTTCTCTC-3'                     | 5'-GCAAGGTCCAGACGAAGG-3'                            |
| pBI121-PbCOP1.1 | 5'-GGACTCTAGAGGATCCATGGTCTACTCAC<br>GCACGC-3' | 5'-GATCGGGGAAATTCGAGCTCTCAGGC<br>TGCAAGTACGAGCAC-3' |
| pBI121-PbCOP1.2 | 5'-GGACTCTAGAGGATCCATGGAGGAGTGCT<br>CGACCG-3' | 5'-GATCGGGGAAATTCGAGCTCCTATGC<br>CGCAAGAACCAACT-3'  |