**Table S1.** Primers used in this study

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| **Primers** | **Sequence 5′-3′** | **Purpose** |
| Actin-F | GGGATGGAGAAGTTTGGTGGTGG | RT-qPCR |
| Actin-R | CTTCGACCAAGGGATGGTGTAGC |
| PHA1-F | CGTCTCGCTCCTAAAGCCAA |
| PHA 1-R | ACGAGCATCTGCAGGAACAA |
| PHA 2-F | AATGTTCGCGAGAGGGTCTG |
| PHA 2-R | CCAATCTGGGGGCTTTCCAT |
| PHA 3-F | AAGTTCCTCATCCGTTATGCT |
| PHA3-R | AAGCTCGCGCAGTTCTTTTC |
| PHA 4-F | TTTCGGCTTGAGTGGAAGGG |
| PHA 4-R | TGTCGTTGAATAGGCCAGCG |
| PHA 5-F | TGGGATCATCCTCGGAACCT |
| PHA 5-R | AAGACCGTGTTCGTTCTCCC |
| PHA 6-F | CGGAGTCTTTCCAGAGCACA |
| PHA 6-R | TATCACACTCAATCCTGGCTCC |
| PHA 7-F | AGATGCGACCAAGGACACTG |
| PHA 7-R | AACCTCTTGGATGCCTGCTC |
| PHA 8-F | TGGAAAGGCTGCTCATCTCG |
| PHA 8-R | ACAGCTTCACGAGGATGTCG |
| PAH2-F1 | AAAGCTATAAGCCTCGAAGAGATAA | Vector construction |
| PHA2-R1 | TGCTGCTGGATCGTTTCG |
| PAH-F2 | A AGAAAAGAAGAGACACACAAGC | Identification of heterologous overexpression |
| PHA-R2 | GACACAATCCCTTTCAATGG |