

**Supplementary Figure 1.** NR annotated homologous species distribution map.



**Supplementary Figure 2.** Number of expressed unigenes in two kinds of *C*. *oleifera* leaves.



**Supplementary Figure 3.** Correlation analysis between different samples.



**Supplementary Figure 4.** Heat map of SAGs associated with important pathways. (A). Heat map of SAGs associated with Chl degradation pathway. (B). Heat map of SAGs associated with plant hormones pathway. (C). Heat map of SAGs associated with oxidation pathway.

**Supplemental Table 1.** Summary of sequencing data.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample** | **Raw reads** | **Raw bases** | **Clean reads** | **Clean bases** | **Error rate(%)** | **Q20(%)** | **Q30(%)** | **GC content(%)** |
| AL\_1 | 40602140 | 6090321000 | 40602122 | 6083938605 | 0.0309 | 97.73 | 90.82 | 44.3 |
| AL\_2 | 41787452 | 6268117800 | 41787438 | 6261169669 | 0.0317 | 97.59 | 90.32 | 44.3 |
| AL\_3 | 41858158 | 6278723700 | 41858150 | 6271628664 | 0.0317 | 97.59 | 90.37 | 44.22 |
| BL\_1 | 41859088 | 6278863200 | 41859058 | 6272071765 | 0.0312 | 97.67 | 90.67 | 45.37 |
| BL\_2 | 40906828 | 6136024200 | 40906790 | 6129079679 | 0.0314 | 97.61 | 90.46 | 45.22 |
| BL\_3 | 40965808 | 6144871200 | 40965788 | 6137903261 | 0.0307 | 97.76 | 90.95 | 44.94 |

**Supplemental Table 2.** The details of putative SAGs.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Gene Name** | **Gene ID** | **BL/AL** | **Log2FC** | **Homologous Gene** | **E-value** |
| *CoIAA17* | TRINITY\_DN36613\_c0\_g1 | up | 1.3467818 | AT1G04250.1 | 1.00E-07 |
| *CoMYBS3* | TRINITY\_DN18483\_c0\_g1 | up | 1.6100715 | AT1G74840.2 | 2.00E-33 |
| *CoGH3.6* | TRINITY\_DN27587\_c1\_g1 | down | -1.6288166 | AT4G27260.1 | e-157 |
| *CoSAUR36-1* | TRINITY\_DN552\_c0\_g1 | up | 1.3527795 | AT2G45210.1 | 2.00E-32 |
| *CoSAUR36-2* | TRINITY\_DN6099\_c0\_g1 | up | 1.5094534 | AT3G60690.1 | 7.00E-34 |
| *CoAHK2-1* | TRINITY\_DN17039\_c0\_g1 | down | -1.6183519 | AT5G35750.1 | 0 |
| *CoAHK2-2* | TRINITY\_DN10183\_c0\_g1 | down | -1.4934726 | AT5G35750.1 | 0 |
| *CoSNRK2.3* | TRINITY\_DN5370\_c1\_g1 | up | 1.170896 | AT5G66880.1 | 2.00E-47 |
| *CoPYL9* | TRINITY\_DN12927\_c0\_g1 | up | 2.0600488 | AT1G01360.1 | 1.00E-50 |
| *CopMEL1-1* | TRINITY\_DN53715\_c0\_g2 | up | 4.0657514 | X69935.1 | 2.00E-20 |
| *CopMEL1-2* | TRINITY\_DN4026\_c0\_g1 | up | 2.5656328 | X69935.1 | 9.00E-28 |
| *CoCBF2-1* | TRINITY\_DN67496\_c0\_g1 | down | -1.4914099 | AT4G25470.1 | 3.00E-27 |
| *CoRap2.4f-1* | TRINITY\_DN13798\_c0\_g2 | up | 1.1968464 | AT4G28140.1 | 9.00E-19 |
| *CopMEL1-3* | TRINITY\_DN13526\_c0\_g1 | up | 2.6058831 | X69935.1 | e-144 |
| *CoRap2.4f-2* | TRINITY\_DN14215\_c0\_g3 | up | 7.9113781 | AT4G28140.1 | 2.00E-22 |
| *CoERF1* | TRINITY\_DN50336\_c0\_g1 | up | 1.1901522 | AT3G23240.1 | 1.00E-58 |
| *CoS40-1* | TRINITY\_DN36808\_c0\_g1 | up | 8.9836788 | AJ310379.1 | 1.00E-12 |
| *CoNPR1* | TRINITY\_DN8791\_c0\_g1 | up | 1.6193333 | AT1G64280.1 | 1.00E-35 |
| *CoRap2.4f-3* | TRINITY\_DN3240\_c0\_g6 | up | 1.2191871 | AT4G28140.1 | 2.00E-58 |
| *CoCBF2-2* | TRINITY\_DN43105\_c0\_g1 | down | -3.4572053 | AT4G25470.1 | 4.00E-33 |
| *CoRap2.4f-4* | TRINITY\_DN10458\_c0\_g1 | up | 1.2173103 | AT4G28140.1 | 4.00E-45 |
| *CoMYB2-1* | TRINITY\_DN39656\_c0\_g1 | up | 8.3031635 | AT2G47190.1 | 3.00E-70 |
| *CoMYB2-2* | TRINITY\_DN5619\_c1\_g1 | up | 1.4934606 | AT2G47190.1 | 6.00E-31 |
| *CoMYBL-1* | TRINITY\_DN39795\_c0\_g1 | up | 1.5874645 | AT1G49010.1 | 1.00E-13 |
| *CoMYBL-2* | TRINITY\_DN3932\_c0\_g1 | up | 1.0968673 | AT1G49010.1 | 9.00E-22 |
| *CoNAC46* | TRINITY\_DN9851\_c0\_g1 | up | 1.5039546 | AT3G04060.1 | 4.00E-71 |
| *CoORE1* | TRINITY\_DN22852\_c0\_g1 | up | 4.9587996 | AT5G39610.1 | 6.00E-66 |
| *CoATAF1-1* | TRINITY\_DN5781\_c0\_g2 | up | 1.6951609 | AT1G01720.1 | 7.00E-74 |
| *CoATAF1-2* | TRINITY\_DN5013\_c0\_g2 | up | 1.3418937 | AT1G01720.1 | e-114 |
| *CoNAC72* | TRINITY\_DN537\_c9\_g1 | up | 2.4829226 | AT4G27410.2 | e-109 |
| *CoWRKY75-1* | TRINITY\_DN12903\_c0\_g1 | up | 2.0936494 | GSMUA\_Achr1T05010\_001 | 8.00E-48 |
| *CoWRKY75-2* | TRINITY\_DN667\_c3\_g1 | up | 5.1552228 | AT5G13080.1 | 1.00E-46 |
| *CoWRKY75-3* | TRINITY\_DN3194\_c1\_g1 | up | 2.9360221 | AT5G13080.1 | 3.00E-48 |
| *CoWRKY70* | TRINITY\_DN2715\_c0\_g2 | down | -1.521904 | AT3G56400.1 | 6.00E-43 |
| *CoTCP2* | TRINITY\_DN7692\_c0\_g1 | up | 1.3184601 | AT4G18390.2 | 8.00E-29 |
| *CoASP3* | TRINITY\_DN87\_c0\_g1 | up | 1.5954822 | AT5G11520.1 | e-161 |
| *CoS40-2* | TRINITY\_DN4248\_c0\_g1 | up | 9.641271 | AJ310379.1 | 4.00E-11 |
| *CoDAO* | TRINITY\_DN20268\_c0\_g1 | up | 1.1240273 | AT1G14130.1 | 9.00E-96 |
| *CoSAN1A-1* | TRINITY\_DN59210\_c0\_g1 | down | -2.1142688 | DQ418880.1 | 4.00E-32 |
| *CoSAN1A-2* | TRINITY\_DN50916\_c0\_g1 | down | -1.8520572 | DQ418880.1 | 3.00E-46 |
| *CoCCD8-1* | TRINITY\_DN3358\_c1\_g1 | up | 2.249482 | AT4G05160.1 | 4.00E-55 |
| *CoCCD8-2* | TRINITY\_DN6401\_c0\_g1 | up | 1.6395736 | AT4G22880.2 | 6.00E-49 |
| *CoCCD8-3* | TRINITY\_DN5126\_c0\_g3 | up | 2.815144 | AT4G16690.1 | 5.00E-24 |
| *CoPIF3-1* | TRINITY\_DN24722\_c0\_g1 | up | 1.3192897 | AT1G09530.1 | 3.00E-14 |
| *CoPIF3-2* | TRINITY\_DN21276\_c0\_g1 | up | 1.7089256 | AT1G09530.1 | 3.00E-45 |
| *CoPIF3-3* | TRINITY\_DN18494\_c0\_g1 | up | 2.0274638 | AT1G09530.1 | 1.00E-11 |
| *CoNAC59* | TRINITY\_DN9851\_c1\_g1 | up | 3.135877 | AT3G29035.1 | 1.00E-84 |
| *CoGBF1* | TRINITY\_DN9612\_c0\_g1 | up | 1.9732413 | AT4G36730.2 | 2.00E-07 |
| *CoPR5-1* | TRINITY\_DN2733\_c0\_g1 | up | 1.8015535 | AT1G75040.1 | 2.00E-48 |
| *CoPR5-2* | TRINITY\_DN2733\_c0\_g2 | up | 2.6731328 | AT1G75040.1 | 3.00E-54 |
| *CoNDHF-1* | TRINITY\_DN1546\_c1\_g1 | up | 1.898657 | L14953.1 | 0 |
| *CoNDHF-2* | TRINITY\_DN1642\_c0\_g1 | up | 1.0545178 | L14953.1 | 3.00E-14 |
| *CoAPX1* | TRINITY\_DN11366\_c0\_g1 | down | -1.0969522 | NP\_001030991.2 | 88.46% |
| *CoGST* | TRINITY\_DN3850\_c0\_g1 | down | -1.5267869 | KAE8768646.1 | 35.87% |
| *CoMDAR-1* | TRINITY\_DN16399\_c0\_g1 | down | -1.4827599 | PSS15949.1 | 89.29% |
| *CoMDAR-2* | TRINITY\_DN7372\_c0\_g3 | down | -1.3756895 | PSR87572.1 | 97.96% |
| *CoPAO-1* | TRINITY\_DN8299\_c2\_g1 | up | 1.1545604 | AT3G44880.1 | 0 |
| *CoPAO-2* | TRINITY\_DN6162\_c0\_g2 | up | 1.4169466 | AT3G44880.1 | 4.00E-40 |
| *CoNOL-1* | TRINITY\_DN4140\_c1\_g1 | up | 1.0071489 | AT5G04900.1 | 8.00E-27 |
| *CoNOL-2* | TRINITY\_DN6338\_c0\_g1 | up | 10.036289 | AT5G04900.1 | 6.00E-12 |
| *CoSGR2* | TRINITY\_DN77\_c2\_g1 | up | 6.3507673 | AY850142.1 | 2.00E-53 |
| *CoSGR* | TRINITY\_DN77\_c0\_g1 | up | 5.1172873 | DQ100158.1 | e-109 |
| *CoGLK1* | TRINITY\_DN24132\_c0\_g1 | down | -1.3805131 | AT2G20570.1 | 1.00E-77 |
| *CoNAM1* | TRINITY\_DN21497\_c0\_g1 | up | 1.8243784 | DQ869678.1 | 6.00E-43 |
| *CoNAP* | TRINITY\_DN5899\_c0\_g2 | up | 2.0896607 | [AT1G69490.1](https://bigd.big.ac.cn/lsd/get_gene_detail.php?AI=LSD_45) | 2.00E-23 |
| *CoWRKY6-1* | TRINITY\_DN52425\_c0\_g1 | up | 1.1852138 | AT1G62300.1 | 1.00E-57 |
| *CoWRKY6-2* | TRINITY\_DN7242\_c0\_g1 | up | 2.4582399 | AT1G62300.1 | 6.00E-82 |
| *CoWRKY65-1* | TRINITY\_DN24833\_c0\_g1 | up | 1.6054191 | AT1G29280.1 | 9.00E-17 |
| *CoWRKY3* | TRINITY\_DN5977\_c1\_g1 | up | 1.0955702 | AT2G03340.1 | e-154 |
| *CoWRKY6-3* | TRINITY\_DN8919\_c0\_g1 | up | 1.1049834 | AT1G62300.1 | e-104 |
| *CoWRKY65-2* | TRINITY\_DN3664\_c1\_g2 | up | 1.5993296 | AT1G29280.1 | 1.00E-64 |
| *CoWRKY65-3* | TRINITY\_DN3664\_c1\_g1 | up | 4.1336184 | AT1G29280.1 | 2.00E-63 |
| *CoSAG21-1* | TRINITY\_DN20389\_c0\_g1 | up | 1.5307985 | NP\_567231.1 | 55.79% |
| *CoSAG21-2* | TRINITY\_DN13715\_c0\_g1 | up | 1.9139237 | NP\_193326.4 | 51.28% |
| *CoSAG12* | TRINITY\_DN23037\_c0\_g1 | up | 11.831258 | HQ108340.1 | e-139 |
| *CoCP1-1* | TRINITY\_DN1007\_c0\_g1 | up | 1.0790824 | BAE80740.1 | e-102 |
| *CoCP1-2* | TRINITY\_DN1156\_c0\_g1 | up | 1.5308263 | BAE80740.1 | 0 |

**Supplemental Table 3.** The detail of differentially expressed TFs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Gene ID** | **Family** | **BL/AL** | **Homologous Gene** | **E-value** |
| TRINITY\_DN27597\_c0\_g1 | C2C2 | down | AT2G45190.1 | 3.00E-41 |
| TRINITY\_DN1833\_c2\_g1 | C2C2 | down | AT2G45190.1 | 6.00E-67 |
| TRINITY\_DN1648\_c2\_g1 | AP2/ERF | up | AT1G50640.1 | 6.00E-63 |
| TRINITY\_DN26816\_c0\_g2 | AP2/ERF | down | AT3G15210.1 | 1.00E-47 |
| TRINITY\_DN14051\_c0\_g1 | AP2/ERF | up | AT3G11020.1 | 6.00E-32 |
| TRINITY\_DN9188\_c0\_g1 | AP2/ERF | down | AT4G34410.1 | 1.00E-41 |
| TRINITY\_DN71362\_c0\_g1 | AP2/ERF | up | AT1G78080.1 | 1.00E-61 |
| TRINITY\_DN40284\_c0\_g1 | AP2/ERF | up | GSMUA\_AchrUn\_randomT16200\_001 | 3.00E-87 |
| TRINITY\_DN3974\_c0\_g1 | AP2/ERF | up | AT1G78080.1 | 3.00E-71 |
| TRINITY\_DN3240\_c0\_g6 | AP2/ERF | up | AT4G28140.1 | 2.00E-58 |
| TRINITY\_DN67496\_c0\_g1 | AP2/ERF | down | AT5G11590.1 | 1.00E-58 |
| TRINITY\_DN14674\_c0\_g1 | AP2/ERF | up | GRMZM2G001645\_T01 | 6.00E-32 |
| TRINITY\_DN43105\_c0\_g1 | AP2/ERF | down | AT4G25470.1 | 4.00E-33 |
| TRINITY\_DN29477\_c0\_g1 | AP2/ERF | up | AT4G39780.1 | 1.00E-27 |
| TRINITY\_DN611\_c0\_g1 | AP2/ERF | up | GSMUA\_AchrUn\_randomT16200\_001 | 3.00E-73 |
| TRINITY\_DN10458\_c0\_g1 | AP2/ERF | up | AT4G28140.1 | 4.00E-45 |
| TRINITY\_DN985\_c0\_g1 | AP2/ERF | up | AT1G50640.1 | 2.00E-61 |
| TRINITY\_DN26539\_c0\_g2 | AP2/ERF | down | AT3G61630.1 | 6.00E-32 |
| TRINITY\_DN13798\_c0\_g1 | AP2/ERF | up | AT4G17490.1 | 8.00E-26 |
| TRINITY\_DN13798\_c0\_g2 | AP2/ERF | up | AT4G17490.1 | 4.00E-48 |
| TRINITY\_DN48143\_c0\_g1 | AP2/ERF | down | AT5G25810.1 | 3.00E-33 |
| TRINITY\_DN39927\_c0\_g1 | AP2/ERF | up | GRMZM2G093951\_T01 | 2.00E-42 |
| TRINITY\_DN39927\_c0\_g2 | AP2/ERF | up | GRMZM2G001645\_T01 | 6.00E-48 |
| TRINITY\_DN2551\_c0\_g1 | AP2/ERF | up | AT5G13330.1 | 3.00E-43 |
| TRINITY\_DN4056\_c0\_g1 | AP2/ERF | up | AT3G16770.1 | 7.00E-39 |
| TRINITY\_DN4281\_c2\_g1 | AP2/ERF | up | AT3G50260.1 | 6.00E-41 |
| TRINITY\_DN50336\_c0\_g1 | AP2/ERF | up | AT3G23240.1 | 1.00E-58 |
| TRINITY\_DN14215\_c0\_g3 | AP2/ERF | up | GRMZM2G001645\_T01 | 5.00E-47 |
| TRINITY\_DN16204\_c0\_g1 | B3\_superfamily | down | AT2G36080.1 | 2.00E-04 |
| TRINITY\_DN39723\_c0\_g1 | B3\_superfamily | down | AT1G13260.1 | 2.00E-34 |
| TRINITY\_DN12278\_c0\_g1 | B3\_superfamily | down | AT5G58280.1 | 7.00E-05 |
| TRINITY\_DN38864\_c0\_g1 | B3\_superfamily | down | AT1G59750.3 | 1.00E-09 |
| TRINITY\_DN12614\_c0\_g1 | B3\_superfamily | up |  |  |
| TRINITY\_DN863\_c0\_g2 | LBD (AS2/LOB) | up | AT3G61890.1 | 2.00E-40 |
| TRINITY\_DN8300\_c0\_g1 | LBD (AS2/LOB) | up | AT4G16780.1 | 2.00E-56 |
| TRINITY\_DN5196\_c2\_g1 | LBD (AS2/LOB) | up | AT4G16780.1 | 2.00E-47 |
| TRINITY\_DN36535\_c0\_g1 | LBD (AS2/LOB) | up | AT3G01470.1 | 6.00E-35 |
| TRINITY\_DN28622\_c0\_g1 | LBD (AS2/LOB) | up | AT3G01470.1 | 5.00E-39 |
| TRINITY\_DN40716\_c0\_g1 | bHLH | down | GSMUA\_Achr10T17130\_001 | 5.00E-51 |
| TRINITY\_DN2672\_c1\_g1 | bHLH | up | AT3G56970.1 | 1.00E-49 |
| TRINITY\_DN9725\_c0\_g1 | bHLH | down | AT1G12860.1 | 5.00E-39 |
| TRINITY\_DN19754\_c1\_g1 | bHLH | down | AT3G56970.1 | 4.00E-07 |
| TRINITY\_DN24722\_c0\_g1 | bHLH | up | AT1G09530.1 | 3.00E-14 |
| TRINITY\_DN17763\_c0\_g1 | bHLH | up | AT2G22760.1 | 1.00E-39 |
| TRINITY\_DN3749\_c0\_g3 | bHLH | down | GSMUA\_Achr7T02770\_001 | 3.00E-38 |
| TRINITY\_DN39091\_c0\_g1 | bHLH | up | GSMUA\_Achr1T25000\_001 | 8.00E-10 |
| TRINITY\_DN3098\_c0\_g2 | bHLH | up | AT3G56970.1 | 5.00E-06 |
| TRINITY\_DN18427\_c0\_g1 | bHLH | up | AT1G12860.1 | e-102 |
| TRINITY\_DN21276\_c0\_g1 | bHLH | up | AT1G09530.1 | 3.00E-45 |
| TRINITY\_DN46497\_c0\_g2 | bHLH | down | AT1G72210.1 | 2.00E-48 |
| TRINITY\_DN18494\_c0\_g1 | bHLH | up | AT1G09530.1 | 1.00E-11 |
| TRINITY\_DN37279\_c0\_g1 | MYB\_superfamily | up | AT2G02060.1 | 2.00E-26 |
| TRINITY\_DN383\_c0\_g1 | MYB\_superfamily | up | GSMUA\_Achr7T15090\_001 | e-153 |
| TRINITY\_DN39656\_c0\_g1 | MYB\_superfamily | up | AT2G47190.1 | 3.00E-70 |
| TRINITY\_DN58560\_c0\_g2 | MYB\_superfamily | down | AT1G19510.1 | 3.00E-28 |
| TRINITY\_DN9779\_c0\_g2 | MYB\_superfamily | down | AT5G59780.3 | 2.00E-22 |
| TRINITY\_DN5619\_c1\_g1 | MYB\_superfamily | up | AT2G47190.1 | 6.00E-31 |
| TRINITY\_DN39795\_c0\_g1 | MYB\_superfamily | up | AT1G49010.1 | 1.00E-13 |
| TRINITY\_DN13534\_c0\_g1 | MYB\_superfamily | up | GSMUA\_Achr10T17610\_001 | 1.00E-62 |
| TRINITY\_DN3932\_c0\_g1 | MYB\_superfamily | up | AT1G49010.1 | 9.00E-22 |
| TRINITY\_DN3080\_c0\_g1 | MYB\_superfamily | up | AT5G44190.1 | 1.00E-46 |
| TRINITY\_DN24132\_c0\_g1 | MYB\_superfamily | down | AT2G20570.1 | 1.00E-77 |
| TRINITY\_DN9280\_c0\_g1 | MYB\_superfamily | up | AT1G06180.1 | 1.00E-41 |
| TRINITY\_DN23538\_c0\_g1 | MYB\_superfamily | up | AT3G23250.1 | 1.00E-55 |
| TRINITY\_DN31051\_c0\_g1 | MYB\_superfamily | up | AT1G19510.1 | 1.00E-25 |
| TRINITY\_DN20755\_c0\_g1 | MYB\_superfamily | up | AT5G13820.1 | e-108 |
| TRINITY\_DN670\_c0\_g2 | MYB\_superfamily | up | AT3G16857.2 | 3.00E-92 |
| TRINITY\_DN51640\_c0\_g1 | MYB\_superfamily | up | AT2G39880.1 | 3.00E-34 |
| TRINITY\_DN170\_c2\_g1 | MYB\_superfamily | up | AT2G16720.1 | 2.00E-71 |
| TRINITY\_DN6840\_c1\_g1 | MYB\_superfamily | up | AT3G06490.1 | 7.00E-22 |
| TRINITY\_DN14386\_c0\_g1 | MYB\_superfamily | down | AT1G19510.1 | 5.00E-28 |
| TRINITY\_DN8399\_c0\_g2 | MYB\_superfamily | up | AT3G06490.1 | 9.00E-64 |
| TRINITY\_DN8399\_c0\_g3 | MYB\_superfamily | up | AT3G06490.1 | 1.00E-64 |
| TRINITY\_DN13233\_c0\_g1 | MYB\_superfamily | up | AT4G21440.1 | e-105 |
| TRINITY\_DN15097\_c0\_g1 | MYB\_superfamily | down | AT4G34990.1 | 5.00E-52 |
| TRINITY\_DN15085\_c0\_g1 | MYB\_superfamily | up | GSMUA\_Achr4T25260\_001 | 7.00E-44 |
| TRINITY\_DN15085\_c0\_g2 | MYB\_superfamily | up | GSMUA\_Achr4T25260\_001 | 8.00E-71 |
| TRINITY\_DN18483\_c0\_g1 | MYB\_superfamily | up | AT1G49010.1 | 1.00E-29 |
| TRINITY\_DN73511\_c0\_g1 | LOB | up | GSMUA\_Achr2T11240\_001 | 6.00E-42 |
| TRINITY\_DN15451\_c0\_g1 | LOB | up | AT1G07900.1 | 1.00E-62 |
| TRINITY\_DN888\_c1\_g1 | LOB | down | AT2G28500.1 | 1.00E-07 |
| TRINITY\_DN102\_c0\_g1 | LOB | up |  |  |
| TRINITY\_DN49606\_c0\_g1 | C2C2 | down | AT3G60530.1 | 2.00E-65 |
| TRINITY\_DN91\_c1\_g1 | C2C2 | up | AT3G20750.1 | 2.00E-11 |
| TRINITY\_DN2453\_c0\_g1 | NAC | down | AT1G77450.1 | 1.00E-16 |
| TRINITY\_DN9851\_c1\_g1 | NAC | up | AT3G29035.1 | 1.00E-84 |
| TRINITY\_DN9851\_c0\_g1 | NAC | up | AT3G04060.1 | 4.00E-71 |
| TRINITY\_DN21497\_c0\_g1 | NAC | up | DQ869678.1 | 6.00E-43 |
| TRINITY\_DN56051\_c0\_g1 | NAC | down | AT1G62700.1 | 3.00E-72 |
| TRINITY\_DN5899\_c0\_g2 | NAC | up | [AT1G69490.1](https://bigd.big.ac.cn/lsd/get_gene_detail.php?AI=LSD_45) | 2.00E-23 |
| TRINITY\_DN22852\_c0\_g1 | NAC | up | AT5G39610.1 | 6.00E-66 |
| TRINITY\_DN33129\_c0\_g1 | NAC | up | AT1G62700.1 | 9.00E-69 |
| TRINITY\_DN3780\_c0\_g1 | NAC | down | AT2G43000.1 | 2.00E-50 |
| TRINITY\_DN3718\_c0\_g1 | NAC | down | AT3G49530.1 | 3.00E-64 |
| TRINITY\_DN5781\_c0\_g2 | NAC | up | AT1G01720.1 | 7.00E-74 |
| TRINITY\_DN1120\_c0\_g1 | NAC | up | AT3G10490.2 | 2.00E-96 |
| TRINITY\_DN1120\_c0\_g2 | NAC | up | AT3G10490.2 | 1.00E-93 |
| TRINITY\_DN5013\_c0\_g2 | NAC | up | AT1G01720.1 | e-114 |
| TRINITY\_DN537\_c9\_g1 | NAC | up | AT4G27410.2 | e-109 |
| TRINITY\_DN10184\_c0\_g2 | ZF-HD | down | AT2G02540.1 | 2.00E-60 |
| TRINITY\_DN10184\_c0\_g3 | ZF-HD | down | AT2G02540.1 | 1.00E-63 |
| TRINITY\_DN11498\_c1\_g1 | HSF | up | AT4G11660.1 | 6.00E-80 |
| TRINITY\_DN3494\_c0\_g1 | HSF | up | AT4G36990.1 | 2.00E-86 |
| TRINITY\_DN9349\_c0\_g1 | Nin-like | down | AT4G35270.1 | 3.00E-47 |
| TRINITY\_DN21303\_c0\_g1 | Nin-like | up | AT3G59580.2 | 1.00E-35 |
| TRINITY\_DN14153\_c0\_g1 | C2C2 | up | AT4G15248.1 | 4.00E-24 |
| TRINITY\_DN16846\_c0\_g1 | C2C2 | up | AT3G47500.1 | 1.00E-84 |
| TRINITY\_DN16431\_c0\_g1 | C2C2 | up | AT3G47500.1 | 2.00E-31 |
| TRINITY\_DN71468\_c0\_g1 | GRAS | up | AT2G29060.1 | 4.00E-32 |
| TRINITY\_DN24681\_c0\_g1 | GRAS | up | AT3G50650.1 | 7.00E-38 |
| TRINITY\_DN6669\_c0\_g1 | GRAS | up | AT4G17230.1 | e-104 |
| TRINITY\_DN282\_c0\_g2 | GRAS | up | GSMUA\_AchrUn\_randomT04680\_001 | e-113 |
| TRINITY\_DN8434\_c0\_g2 | GRAS | down | AT4G17230.1 | e-147 |
| TRINITY\_DN52425\_c0\_g1 | WRKY | up | AT1G62300.1 | 1.00E-57 |
| TRINITY\_DN7242\_c0\_g1 | WRKY | up | AT1G62300.1 | 6.00E-82 |
| TRINITY\_DN6173\_c2\_g1 | WRKY | up | GSMUA\_Achr1T05010\_001 | 6.00E-26 |
| TRINITY\_DN24833\_c0\_g1 | WRKY | up | AT1G29280.1 | 9.00E-17 |
| TRINITY\_DN16560\_c0\_g1 | WRKY | up | AT4G01720.1 | 3.00E-24 |
| TRINITY\_DN26569\_c0\_g1 | WRKY | up | AT5G49520.1 | 3.00E-16 |
| TRINITY\_DN24674\_c0\_g1 | WRKY | up | AT5G49520.1 | 3.00E-66 |
| TRINITY\_DN18195\_c0\_g1 | WRKY | up | AT3G01970.1 | 1.00E-43 |
| TRINITY\_DN12958\_c0\_g1 | WRKY | up | AT4G18170.1 | 2.00E-61 |
| TRINITY\_DN12903\_c0\_g1 | WRKY | up | GSMUA\_Achr1T05010\_001 | 8.00E-48 |
| TRINITY\_DN667\_c3\_g1 | WRKY | up | AT5G13080.1 | 1.00E-46 |
| TRINITY\_DN57092\_c0\_g1 | WRKY | up | AT5G15130.1 | 2.00E-91 |
| TRINITY\_DN5977\_c1\_g1 | WRKY | up | AT2G03340.1 | e-154 |
| TRINITY\_DN23254\_c0\_g1 | WRKY | up | AT5G49520.1 | 3.00E-51 |
| TRINITY\_DN8919\_c0\_g1 | WRKY | up | AT1G62300.1 | e-104 |
| TRINITY\_DN3194\_c1\_g1 | WRKY | up | AT5G13080.1 | 3.00E-48 |
| TRINITY\_DN2715\_c0\_g2 | WRKY | down | AT3G56400.1 | 6.00E-43 |
| TRINITY\_DN3664\_c1\_g2 | WRKY | up | AT1G29280.1 | 1.00E-64 |
| TRINITY\_DN3664\_c1\_g1 | WRKY | up | AT1G29280.1 | 2.00E-63 |
| TRINITY\_DN8369\_c0\_g1 | WRKY | up | AT5G49520.1 | 3.00E-74 |
| TRINITY\_DN7183\_c0\_g2 | S1Fa-like | up |  |  |
| TRINITY\_DN24875\_c0\_g1 | SBP | down | AT3G15270.1 | 6.00E-39 |
| TRINITY\_DN59988\_c0\_g1 | bZIP | up | AT1G75390.1 | 2.00E-33 |
| TRINITY\_DN6170\_c0\_g2 | bZIP | up | AT3G62420.1 | 5.00E-45 |
| TRINITY\_DN747\_c1\_g1 | bZIP | up | AT1G75390.1 | 2.00E-34 |
| TRINITY\_DN17865\_c0\_g1 | bZIP | up | AT3G62420.1 | 2.00E-21 |
| TRINITY\_DN6612\_c1\_g2 | bZIP | up | AT1G75390.1 | 9.00E-35 |
| TRINITY\_DN9306\_c0\_g1 | bZIP | up | AT1G42990.1 | 3.00E-43 |
| TRINITY\_DN9612\_c0\_g1 | bZIP | up | AT4G36730.2 | 2.00E-07 |
| TRINITY\_DN35783\_c0\_g1 | MADS | up | AT3G57390.1 | 2.00E-10 |
| TRINITY\_DN49521\_c0\_g1 | TCP | down | AT3G15030.2 | 4.00E-60 |
| TRINITY\_DN9759\_c0\_g1 | TCP | up | AT3G27010.1 | 8.00E-70 |
| TRINITY\_DN7692\_c0\_g1 | TCP | up | AT4G18390.2 | 8.00E-29 |
| TRINITY\_DN11660\_c0\_g1 | NF-Y | up | AT1G30500.2 | 3.00E-58 |
| TRINITY\_DN669\_c1\_g2 | NF-Y | down | AT1G72830.1 | 5.00E-47 |
| TRINITY\_DN669\_c0\_g1 | NF-Y | down | AT1G72830.1 | 7.00E-40 |
| TRINITY\_DN25409\_c0\_g2 | GeBP | up | AT3G04930.1 | 1.00E-68 |
| TRINITY\_DN10422\_c0\_g1 | GeBP | up | AT3G04930.2 | 1.00E-06 |
| TRINITY\_DN758\_c0\_g1 | C2H2 | up | AT1G55110.1 | 3.00E-88 |
| TRINITY\_DN53003\_c0\_g4 | C2H2 | up | AT1G08290.1 | e-104 |
| TRINITY\_DN53003\_c1\_g1 | C2H2 | up | AT1G08290.1 | 6.00E-80 |
| TRINITY\_DN7203\_c0\_g2 | CPP | down | GRMZM2G047456\_T02 | e-108 |
| TRINITY\_DN52758\_c0\_g1 | CPP | down | AT3G22760.1 | 6.00E-24 |
| TRINITY\_DN44254\_c0\_g1 | CPP | up | AT3G22760.1 | 2.00E-33 |
| TRINITY\_DN66081\_c0\_g1 | BBR-BPC | up | AT2G35550.2 | 9.00E-10 |
| TRINITY\_DN47304\_c0\_g1 | C2C2 | up | AT4G20380.1 | 5.00E-13 |
| TRINITY\_DN8308\_c1\_g1 | C2C2 | up | AT4G20380.8 | 3.00E-22 |
| TRINITY\_DN8308\_c0\_g1 | C2C2 | up | AT4G20380.1 | 3.00E-25 |
| TRINITY\_DN3859\_c0\_g3 | BES1 | up | AT3G50750.1 | 6.00E-51 |

**Supplemental Table 4.** Primer sequences used in the qRT-PCR experiment.

|  |  |  |
| --- | --- | --- |
| **Gene Name** | **F** | **R** |
| *CoNOL-1* | CGAGGATATTACTGGCTTTGGTCAC | AATTATGAAGGCACAAACGACAGCA |
| *CoSGR* | GGTTTTGAAGGCCTTTGTACATGGA | GGGGTTTCATCTCCTTTGTCTTTGT |
| *CoPOL-2* | TCTCCCACGATAGAACTGATTGGAC | GTTTTTCTCCCCCTTCTCATCAACA |
| *CoORE1* | AGCAGTAAAGAAACCACATCCTGAA | GCCATTGTTTTCGCTGTTGTAGTTT |
| *CoNAC72* | ATGATTGGGTTCTGTGTCGGATCTA | GCAAAGACTCTAACATGTCGTCGAA |
| *CoMYBL-1* | GGAAGAGTGTGGAGGAGGTGAAG | TCCATGAATTTGTAGCCCTTGTTGC |
| *CoSAUR36-1* | CCACACTTTTCCGGTACGTCTTC | CTTCCAATAGAGAGTAAGCCCGACC |
| *CoATAF1-1* | AGGTGGGGCTATTTATGCGAAGTTT | AACACCCAATCATCAAGCTGCAATG |
| *CoPYL9* | TCAACACCACCACTACAAACATTCG | GTGCTTGTACGCTTGTGGGTTG |
| *CoGAPDH* | TGGCTTTCTCTTCTTTCCTCAGATC | GCGATTGAAACCAACAGAAAACACC |
| *CoS40-2* | AAGAAATCCAGGAATCCGAGGTCAT | CTCTGCTTGGGCTTTGTATTTCTCC |
| *CoAHK2-1* | TTTGATGCAGCGATAAACCGAATTG | GCAGCATACCTAATACGCCATTCAT |
| *CoWRKY75-2* | TCATCCTCAACATCATCAGCTTCTC | TGCTCTGAGAAACACCACCATTATT |
| *CoNAC59* | CAGGAATGAGTGGGTGATTTGTAGG | GGTTTAGTTCTGTCGCCATAAGGAG |
| *CoGBF1* | CAGTTCCATTTCCCGGTTTTCGATG | CCACTGAGTAAACCGTTAGACCTGT |
| *CoMDAR-2* | GGAACACGGGTTAAGTCAGCAG | AAGTCCAAACTCTTCCAGCTTCAAA |
| *CoSAG12* | TAGAAAGGCACGAGCAATGGATG | CATTACGAGAAGCACGAAACTCCT |
| *CoWRKY65-2* | CCACCACAATCAACAAATCAAAGCG | GGTAGTCGATGATGTGGTTGTTTCC |
| *CoNAM1* | CCGGCCGATCATGATGACAAAA | TCAGTACTGTCAGACTCATCCACA |
| *CoSAG21-2* | ATGTATGGTTGTATAGGCGGGG | TCGTTAGCTTTATTCTCGGGTCTG |