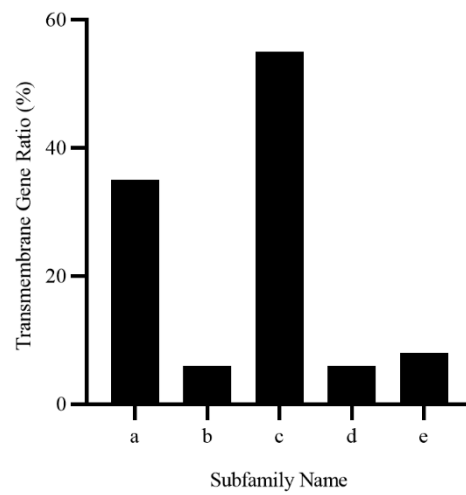
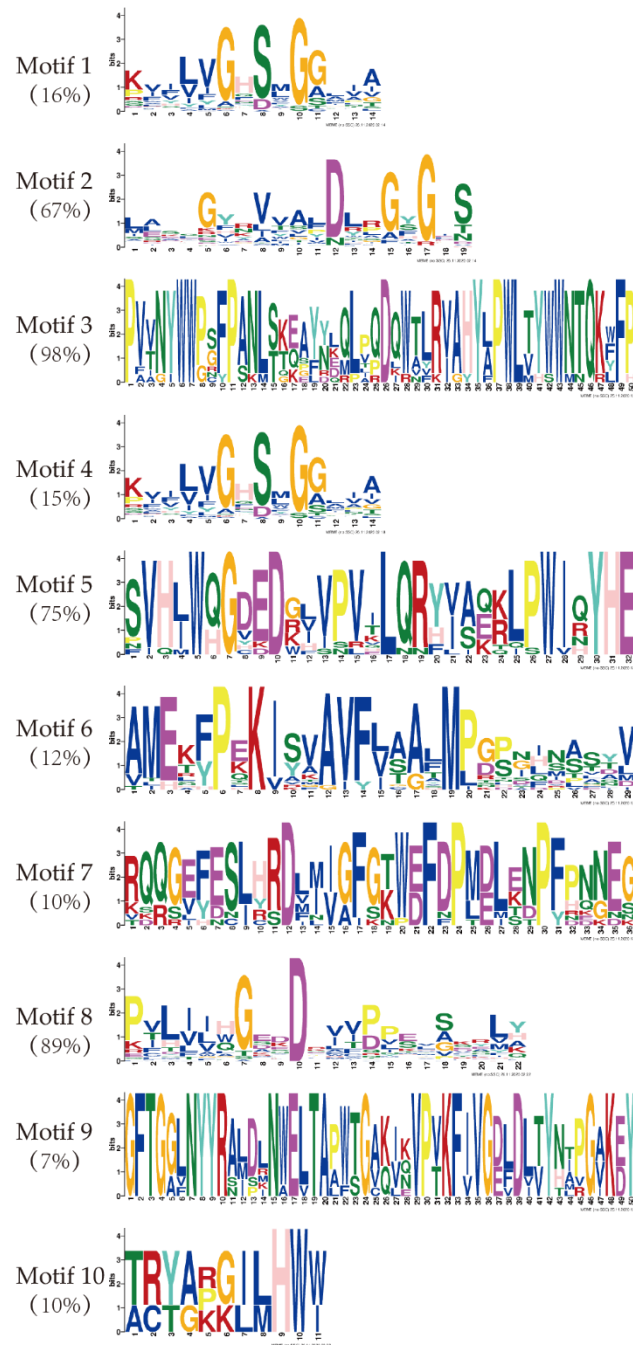
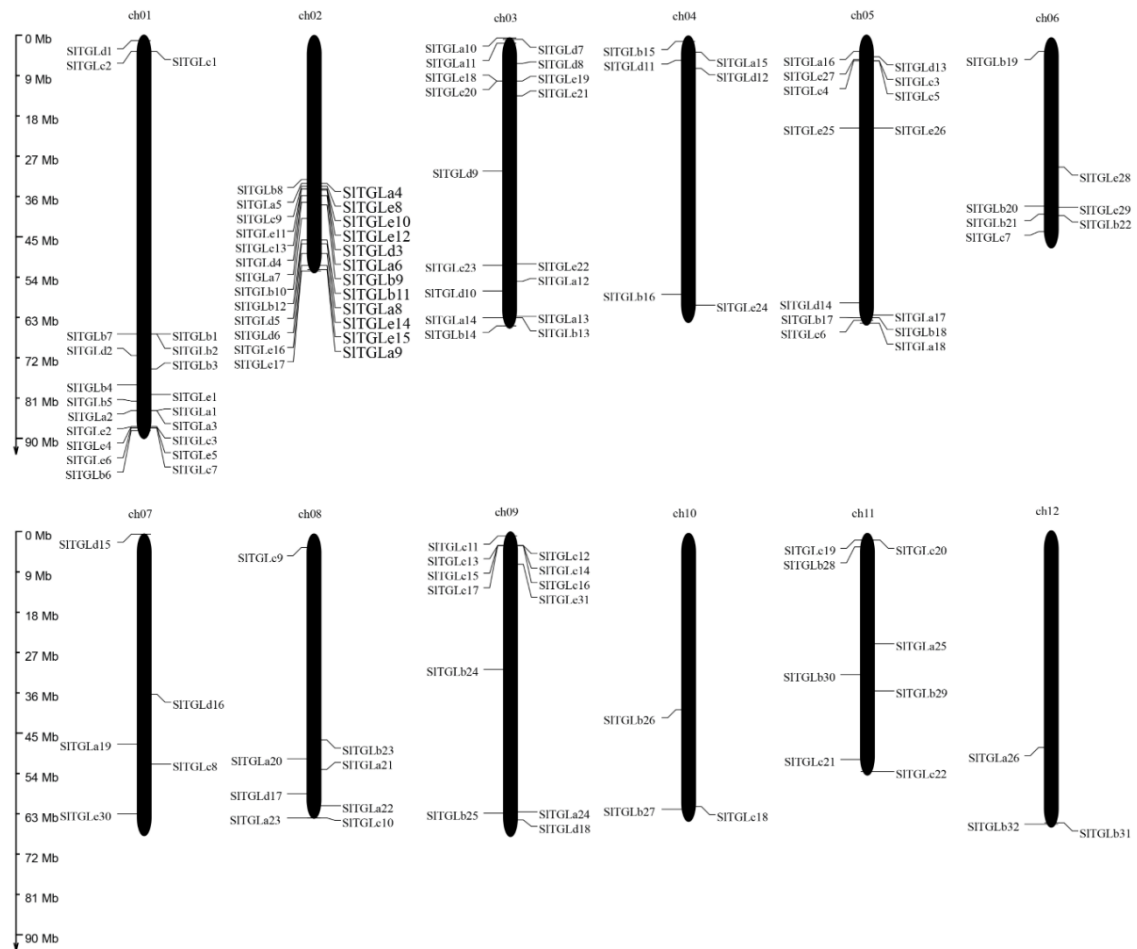




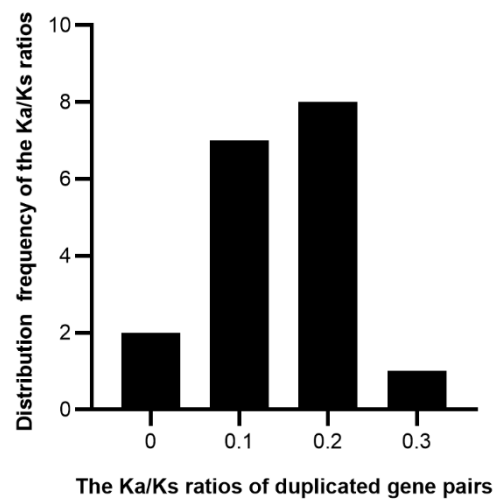
**Figure S1.** The transmembrane gene ratio of *SITGL* gene subfamilies. Transmembrane gene prediction were performed by using TMHMM Server v. 2.0 (<https://services.healthtech.dtu.dk/>). All genes in each subfamily were involved in the prediction. a, b, c, d, and e represented subfamily a, subfamily b, subfamily c, subfamily d, and subfamily e.



**Figure S2.** The consensus sequences of Motif 1-10 in SITGL proteins. All motifs were scanned from 129 SITGL amino acid sequences in MEME (<http://meme-suite.org/tools/meme>). Motif width between 10 to 50. The frequency of a motif occurrence per sequence is zero or one. The percentage under each motif represents the proportion of this motif in the TGL family.



**Figure S3.** Chromosomal locations of *SITGL* genes in *Solanum lycopersicum*. Chromosomal mapping was based on the physical position (Mb) in 12 tomato chromosomes. The chromosome number is indicated at the top of each bar. The positions of the tomato *SITGL* genes in the chromosomes were obtained from Sol Genomics Network database (SGN, <https://www.sgn.cornell.edu>).



**Figure S4.** Histogram of distribution frequency of pairwise Ka/Ks ratios for homologous genes. The Ka/Ks ratios were calculated by TBtools (<https://github.com/CJ-Chen/TBtools>). The duplicated gene pairs were identified by MCscan.

**Table S1.** The detailed information of SITGL members.

| Gene     | Sub-family | Annotated CDS    | Genomic position   | Chr | CDS  | AA  | pIs  | MW    | Subcellular localization                                      |
|----------|------------|------------------|--------------------|-----|------|-----|------|-------|---------------------------------------------------------------|
| SITGLa1  | a          | Solyc01g103650.3 | 92197324-92203584  | 1   | 1623 | 442 | 8.43 | 49.45 | cyto: 6, E.R.: 3, plas: 2, chlo: 1, nucl: 1, mito: 1          |
| SITGLa2  | a          | Solyc01g103660.4 | 92209732-92216532  | 1   | 1838 | 551 | 8.31 | 61.81 | E.R.: 4, nucl: 3, cyto: 3, mito: 1, plas: 1, vacu: 1, pero: 1 |
| SITGLa3  | a          | Solyc01g103670.4 | 92217828-92226403  | 1   | 1946 | 532 | 5.86 | 59.72 | plas: 8, E.R.: 3, nucl: 1, extr: 1, vacu: 1                   |
| SITGLa4  | a          | Solyc02g063160.4 | 35233966-35239703  | 2   | 1397 | 382 | 6.91 | 43.16 | cyto: 12, nucl: 1, mito: 1                                    |
| SITGLa5  | a          | Solyc02g063200.3 | 35246162-35252359  | 2   | 1044 | 347 | 8.5  | 38.32 | cyto: 6, nucl: 3, cysk: 2, vacu: 1.5, E.R._vacu: 1.5, plas: 1 |
| SITGLa6  | a          | Solyc02g068070.4 | 38118498-38123349  | 2   | 1544 | 418 | 5.66 | 46.12 | chlo: 5, cyto: 3, E.R.: 2, nucl: 1, mito: 1, extr: 1, vacu: 1 |
| SITGLa7  | a          | Solyc02g069930.1 | 39709565-39708606  | 2   | 960  | 319 | 8.4  | 36.05 | pero: 9, cyto_nucl: 3, nucl: 2.5, cyto: 2.5                   |
| SITGLa8  | a          | Solyc02g086040.2 | 48839772-48842414  | 2   | 849  | 282 | 6.71 | 31.73 | cyto: 5, nucl: 4, cysk: 3, extr: 1, E.R._vacu: 1              |
| SITGLa9  | a          | Solyc02g094040.3 | 54686908-54690119  | 2   | 1374 | 403 | 6.96 | 44.74 | nucl: 3, E.R.: 3, chlo: 2, cyto: 2, vacu: 2, mito: 1, plas: 1 |
| SITGLa10 | a          | Solyc03g005020.3 | 11260524-1127010   | 3   | 1264 | 421 | 7.43 | 39.42 |                                                               |
| SITGLa11 | a          | Solyc03g006560.3 | 1128702-1130011    | 3   | 1241 | 313 | 8.08 | 35.42 | cyto: 9, nucl: 4, cysk: 1                                     |
| SITGLa12 | a          | Solyc03g098020.4 | 60369018-60376150  | 3   | 1829 | 470 | 9.58 | 52.48 | chlo: 10, mito: 3, golg: 1                                    |
| SITGLa13 | a          | Solyc03g119720.4 | 68262870-68269514  | 3   | 2653 | 768 | 9.11 | 87.29 | plas: 6, vacu: 3, nucl: 1, cyto: 1, mito: 1, E.R.: 1, pero: 1 |
| SITGLa14 | a          | Solyc03g119980.3 | 68494252-68491760  | 3   | 1386 | 327 | 5.91 | 36.29 | nucl: 7, mito: 3, cyto: 2, plas: 1, cysk: 1                   |
| SITGLa15 | a          | Solyc04g010250.3 | 3577656-3583500    | 4   | 1979 | 319 | 6.38 | 36.58 | cyto: 8, nucl: 3, cysk: 3                                     |
| SITGLa16 | a          | Solyc05g009390.3 | 3548741-3544526    | 5   | 1454 | 397 | 8.82 | 44.64 | chlo: 11, cyto: 2, mito: 1                                    |
| SITGLa17 | a          | Solyc05g053750.3 | 63774196-63780154  | 5   | 1197 | 398 | 5.2  | 44.6  | chlo: 6, extr: 4, E.R.: 2, plas: 1, pero: 1                   |
| SITGLa18 | a          | Solyc05g05600.3  | 65396461-65398412  | 5   | 1456 | 335 | 6.23 | 37.16 | cyto: 9, nucl: 2, cysk: 2, golg: 1                            |
| SITGLa19 | a          | Solyc07g039510.4 | 47624851-47617843  | 7   | 1212 | 259 | 5.76 | 29    | cyto: 10, chlo: 1, nucl: 1, mito: 1, E.R.: 1                  |
| SITGLa20 | a          | Solyc08g063070.3 | 52625247-52632402  | 8   | 1253 | 288 | 8.18 | 32.45 | pero: 11, cyto: 3                                             |
| SITGLa21 | a          | Solyc08g066440.3 | 6287641-62876824   | 8   | 1257 | 275 | 7.53 | 23.57 |                                                               |
| SITGLa22 | a          | Solyc08g079450.3 | 62967637-62975950  | 8   | 1541 | 405 | 5.72 | 44.84 | chlo: 4, nucl: 4, cyto: 2, plas: 2, E.R.: 2                   |
| SITGLa23 | a          | Solyc08g083140.4 | 65681856-65688865  | 8   | 1480 | 418 | 7.03 | 46.51 | chlo: 6, nucl: 6, cyto: 2                                     |
| SITGLa24 | a          | Solyc09g075140.3 | 25766015-25796500  | 9   |      |     |      |       |                                                               |
| SITGLa25 | a          | Solyc11g032200.2 | 25797006-25817118  | 11  | 1206 | 401 | 8.82 | 45.4  | chlo: 7, extr: 3, vacu: 2, cyto: 1, plas: 1                   |
| SITGLa26 | a          | Solyc12g038160.2 | 48802448-48795765  | 12  | 2073 | 690 | 6.46 | 77.71 | plas: 10.5, cyto_plas: 6, E.R.: 2, mito: 1                    |
| SITGLb1  | b          | Solyc01g066450.3 | 74421456-74424175  | 1   | 1215 | 335 | 6.01 | 38.08 | cyto: 14                                                      |
| SITGLb2  | b          | Solyc01g066457.1 | 744225871-74427076 | 1   | 1205 | 325 | 5.84 | 36.92 | cyto: 11, nucl: 1, E.R.: 1, golg: 1                           |
| SITGLb3  | b          | Solyc01g088090.3 | 82931116-82927775  | 1   | 1919 | 512 | 7    | 57.63 | chlo: 12, nucl: 1, cysk: 1                                    |
| SITGLb4  | b          | Solyc01g095120.3 | 86506984-86512818  | 1   | 1638 | 514 | 7.19 | 57.27 | chlo: 8, mito: 6                                              |
| SITGLb5  | b          | Solyc01g099910.4 | 90032830-90029882  | 1   | 1170 | 325 | 5.84 | 36.92 | pero: 7, E.R.: 3, plas: 2, chlo: 1, vacu: 1                   |
| SITGLb6  | b          | Solyc01g109720.3 | 96606949-96604848  | 1   | 1317 | 295 | 8.33 | 33.26 | cyto: 9.5, cyto_E.R.: 5.5, nucl: 2, cysk: 2                   |
| SITGLb7  | b          | Solyc01g150144.1 | 90125840-90127046  | 1   | 1206 | 325 | 5.89 | 36.93 | cyto: 11, nucl: 1, extr: 1, E.R.: 1                           |

|          |   |                  |                   |    |      |     |      |       |                                                                               |
|----------|---|------------------|-------------------|----|------|-----|------|-------|-------------------------------------------------------------------------------|
| SITGLb8  | b | Solyc02g062610.3 | 34331402-34326437 | 2  | 1526 | 372 | 6.2  | 41.19 | chlo: 9, cyto: 4, nucl: 1                                                     |
| SITGLb9  | b | Solyc02g070490.4 | 40226768-40224187 | 2  | 1446 | 387 | 6.65 | 42.39 | chlo: 5, mito: 3, vacu: 2, nucl: 1, cyto: 1, plas: 1, extr: 1                 |
| SITGLb10 | b | Solyc02g078570.3 | 43236921-43234612 | 2  | 1480 | 315 | 5.36 | 35.62 | cyto: 7, chlo: 2, nucl: 2, E.R.: 1, cysk: 1, golg: 1                          |
| SITGLb11 | b | Solyc02g085070.1 | 48083454-48085548 | 2  | 1092 | 363 | 8.32 | 40.86 | chlo: 11.5, chlo_mito: 7, mito: 1.5, nucl: 1                                  |
| SITGLb12 | b | Solyc02g085180.5 | 48161687-48158880 | 2  | 1145 | 332 | 8.87 | 36.8  | cyto: 8, chlo: 2, nucl: 2, mito: 1, cysk: 1                                   |
| SITGLb13 | b | Solyc03g119990.4 | 68503372-68508586 | 3  | 2252 | 633 | 9.16 | 69.01 | plas: 11, E.R.: 2, vacu: 1                                                    |
| SITGLb14 | b | Solyc03g123390.4 | 70260512-70264701 | 3  | 1337 | 370 | 9.03 | 43    | cyto: 6, mito: 2.5, nucl: 2, cyto_mito: 2, plas: 1.5, golg_plas: 1.5, cysk: 1 |
| SITGLb15 | b | Solyc04g007450.4 | 1119419-1113432   | 4  | 1820 | 612 | 5.64 | 60.8  | chlo: 9, nucl: 2, mito: 2, cysk: 1                                            |
| SITGLb16 | b | Solyc04g074220.4 | 60214975-60219706 | 4  | 1176 | 248 | 5.8  | 28.11 | cyto: 7, chlo: 3, nucl: 2, plas: 2                                            |
| SITGLb17 | b | Solyc05g054315.1 | 63640191-63645607 | 5  | 966  | 321 | 5.6  | 36.4  | cyto: 10, chlo: 1, nucl: 1, extr: 1, cysk: 1                                  |
| SITGLb18 | b | Solyc05g054350.3 | 64278493-64275459 | 5  | 1225 | 321 | 5.77 | 36.22 | cyto: 6, E.R.: 5, mito: 2, pero: 1                                            |
| SITGLb19 | b | Solyc06g009170.3 | 3108490-3113302   | 6  | 1354 | 318 | 6.06 | 36.21 | cyto: 7, extr: 2, E.R.: 2, chlo: 1, mito: 1, vacu: 1                          |
| SITGLb20 | b | Solyc06g064640.3 | 40278200-40292413 | 6  | 1679 | 378 | 8.99 | 41.76 | chlo: 8, mito: 5, plas: 1                                                     |
| SITGLb21 | b | Solyc06g067890.3 | 42079659-42085923 | 6  | 2470 | 636 | 8.72 | 69.58 | plas: 10, E.R.: 3, golg: 1                                                    |
| SITGLb22 | b | Solyc06g068220.3 | 42261088-42267698 | 6  | 1553 | 394 | 6.2  | 43.6  | chlo: 12, nucl: 1, mito: 1                                                    |
| SITGLb23 | b | Solyc08g061240.3 | 48255185-48254517 | 8  | 669  | 222 | 9.06 | 25    | nucl: 11, chlo: 2, mito: 1                                                    |
| SITGLb24 | b | Solyc09g047900.2 | 33689158-33695213 | 9  | 1155 | 384 | 6.16 | 42.66 | chlo: 11.5, chlo_mito: 7, mito: 1.5, nucl: 1                                  |
| SITGLb25 | b | Solyc09g075300.3 | 67029977-67033875 | 9  | 1185 | 318 | 5.62 | 36.4  | cyto: 8, mito: 2, nucl: 1, E.R.: 1, cysk: 1, golg: 1                          |
| SITGLb26 | b | Solyc10g047340.2 | 40581634-40582766 | 10 | 900  | 299 | 6.66 | 34.32 | mito: 7.5, cyto_mito: 4.5, chlo: 4, nucl: 2                                   |
| SITGLb27 | b | Solyc10g083270.3 | 63101923-63105022 | 10 | 996  | 331 | 7.17 | 36.98 | mito: 7.5, chlo_mito: 6, chlo: 3.5, nucl: 2, cyto: 1                          |
| SITGLb28 | b | Solyc11g009000.2 | 3151023-3152011   | 11 | 678  | 225 | 8.77 | 25.54 | chlo: 12, mito: 2                                                             |
| SITGLb29 | b | Solyc11g042430.2 | 36614861-36623795 | 11 | 1182 | 393 | 8.18 | 43.39 | chlo: 5, mito: 4, pero: 3, nucl: 2                                            |
| SITGLb30 | b | Solyc11g044310.2 | 33045449-33034623 | 11 | 1191 | 400 | 6.2  | 45.14 | chlo: 7.5, chlo_mito: 7.5, mito: 6.5                                          |
| SITGLb31 | b | Solyc12g098660.3 | 66091429-66095890 | 12 | 1122 | 373 | 7.48 | 41.59 | chlo: 6, nucl: 3, cyto: 2, plas: 1, extr: 1, golg: 1                          |
| SITGLb32 | b | Solyc12g099430.2 | 66584035-66587327 | 12 | 972  | 323 | 6.81 | 36.79 | cyto: 11, chlo: 1, extr: 1, cysk: 1                                           |
| SITGLc1  | c | Solyc01g009480.4 | 3706348-3702854   | 1  | 1332 | 324 | 8.7  | 37.39 | cyto: 8, nucl: 2, chlo: 1, mito: 1, extr: 1, cysk: 1                          |
| SITGLc2  | c | Solyc01g009500.4 | 3739772-3743748   | 1  | 1587 | 354 | 7.03 | 40.53 | chlo: 4, mito: 3.5, cyto_mito: 2.5, nucl: 2, extr: 2, cyto: 1, plas: 1        |
| SITGLc3  | c | Solyc05g012350.4 | 5613049-5616480   | 5  | 1360 | 255 | 8.47 | 28.31 | cyto: 5, chlo: 3, extr: 2, cysk: 2, nucl: 1, mito: 1                          |
| SITGLc4  | c | Solyc05g012360.3 | 5622420-5627115   | 5  | 1311 | 362 | 8.38 | 40.14 | chlo: 8, cyto: 3, nucl: 1, plas: 1, cysk: 1                                   |
| SITGLc5  | c | Solyc05g012370.3 | 5634334-5638589   | 5  | 1451 | 351 | 6.71 | 38.77 | chlo: 12.5, chlo_mito: 7, plas: 1                                             |
| SITGLc6  | c | Solyc05g055290.3 | 64990554-64987424 | 5  | 1231 | 347 | 8.46 | 39.85 | chlo: 5, vacu: 3, golg: 2, nucl: 1, mito: 1, plas: 1, extr: 1                 |
| SITGLc7  | c | Solyc06g074330.3 | 45955461-45953145 | 6  | 1466 | 354 | 6.51 | 40.16 | cyto: 9, nucl: 2, chlo: 1, plas: 1, cysk: 1                                   |
| SITGLc8  | c | Solyc07g041200.3 | 51988393-51982077 | 7  | 1332 | 325 | 8.32 | 36.3  | chlo: 3, extr: 3, mito: 2, vacu: 2, nucl: 1, cyto: 1, E.R.: 1, golg: 1        |
| SITGLc9  | c | Solyc08g008610.3 | 3008230-3003194   | 8  | 1704 | 470 | 8.91 | 53.63 | plas: 8, E.R.: 3, extr: 1, vacu: 1, golg: 1                                   |
| SITGLc10 | c | Solyc08g083190.3 | 65726318-65723499 | 8  | 1653 | 449 | 8.75 | 50.57 | plas: 5, E.R.: 5, chlo: 1, extr: 1, vacu: 1, pero: 1                          |
| SITGLc11 | c | Solyc09g007380.3 | 972929-976824     | 9  | 1913 | 526 | 5.55 | 59.35 | chlo: 4, nucl: 2.5, plas: 2, vacu: 2, cysk_nucl: 2, cyto: 1, mito: 1, E.R.: 1 |
| SITGLc12 | c | Solyc09g009500.3 | 2924458-2918891   | 9  | 1463 | 370 | 9.07 | 41.63 | chlo: 6, mito: 3, golg: 2, nucl: 1, cyto: 1, plas: 1                          |

|          |   |                  |                   |    |      |     |      |       |                                                                                 |
|----------|---|------------------|-------------------|----|------|-----|------|-------|---------------------------------------------------------------------------------|
| SITGLc13 | c | Solyc09g009510.4 | 2929510-2924885   | 9  | 1461 | 409 | 8.48 | 46.56 | cyto: 4, nucl: 2, mito: 2, E.R.: 2, plas: 1, extr: 1, vacu: 1, pero: 1          |
| SITGLc14 | c | Solyc09g009520.3 | 2932883-2929991   | 9  | 1510 | 376 | 9.13 | 42.22 | chlo: 4, mito: 4, golg: 2, nucl: 1, cyto: 1, plas: 1, pero: 1                   |
| SITGLc15 | c | Solyc09g009530.4 | 2939724-2936861   | 9  | 1543 | 348 | 5.95 | 39.88 | chlo: 3, vacu: 3, E.R.: 2, nucl: 1, cyto: 1, mito: 1, plas: 1, extr: 1, golg: 1 |
| SITGLc16 | c | Solyc09g009540.4 | 2953213-2948975   | 9  | 1372 | 366 | 6.81 | 41.35 | nucl: 3, vacu: 3, chlo: 2, E.R.: 2, cyto: 1, plas: 1, extr: 1, golg: 1          |
| SITGLc17 | c | Solyc09g009550.4 | 2963265-296089    | 9  | 1243 | 349 | 6.32 | 39.28 | vacu: 4, chlo: 2, extr: 2, E.R.: 2, golg: 2, nucl: 1, cyto: 1                   |
| SITGLc18 | c | Solyc10g081450.2 | 62506953-62510182 | 10 | 1272 | 423 | 7.53 | 48.25 | plas: 5, vacu: 3, E.R.: 3, cyto: 1, mito: 1, extr: 1                            |
| SITGLc19 | c | Solyc11g007030.3 | 1521058-1516044   | 11 | 1266 | 421 | 8.26 | 48.17 | chlo: 8, vacu: 3, nucl: 1, E.R.: 1, pero: 1                                     |
| SITGLc20 | c | Solyc11g007040.2 | 1525575-1521934   | 11 | 1218 | 405 | 9.09 | 45.98 | chlo: 13, mito: 1                                                               |
| SITGLc21 | c | Solyc11g067260.3 | 52996336-53001292 | 11 | 1161 | 386 | 9.05 | 43.57 | chlo: 11, mito: 2.5, cyto_mito: 2                                               |
| SITGLc22 | c | Solyc11g072440.2 | 55618102-55614355 | 11 | 1626 | 541 | 6    | 60.77 | chlo: 4, plas: 3, vacu: 2, E.R.: 2, nucl: 1, cyto: 1, mito: 1                   |
| SITGLd1  | d | Solyc01g006480.3 | 1074151-1078328   | 1  | 1119 | 236 | 6.65 | 25.53 | cyto: 6, nucl: 4, extr: 3, cysk: 1                                              |
| SITGLd2  | d | Solyc01g080270.3 | 79516162-79496502 | 1  | 2231 | 568 | 4.73 | 63.14 | cyto: 7, chlo: 5, nucl: 2                                                       |
| SITGLd3  | d | Solyc02g065700.3 | 36856743-36853200 | 2  | 1711 | 281 | 5.4  | 31.15 | chlo: 4, nucl: 3, cyto: 3, mito: 1, extr: 1, vacu: 1, cysk: 1                   |
| SITGLd4  | d | Solyc02g067920.4 | 38007199-38013034 | 2  | 1478 | 370 | 9.14 | 42.46 | cyto: 8, nucl: 3, pero: 2, extr: 1                                              |
| SITGLd5  | d | Solyc02g086220.3 | 48953869-48948084 | 2  | 1569 | 340 | 8.95 | 38.03 | chlo: 4, cyto: 4, plas: 3, mito: 1, cysk: 1, golg: 1                            |
| SITGLd6  | d | Solyc02g089320.3 | 51178522-51182343 | 2  | 1306 | 359 | 8.58 | 40.23 | chlo: 10, cyto: 2, extr: 1, vacu: 1                                             |
| SITGLd7  | d | Solyc03g005340.4 | 1204060-1196973   | 3  | 2758 | 829 | 6.67 | 90.76 | chlo: 11, nucl: 1, plas: 1, pero: 1                                             |
| SITGLd8  | d | Solyc03g034270.3 | 6015507-6008882   | 3  | 1422 | 340 | 9.31 | 37.8  | cyto: 5.5, cyto_nucl: 5, nucl: 3.5, chlo: 3, mito: 1, plas: 1                   |
| SITGLd9  | d | Solyc03g063290.3 | 33959869-33958830 | 3  | 946  | 227 | 8.68 | 24.06 | hlo: 4, cyto: 3.5, cyto_nucl: 3.5, nucl: 2.5, extr: 2, mito: 1, vacu: 1         |
| SITGLd10 | d | Solyc03g111770.3 | 62404229-62399613 | 3  | 1462 | 371 | 9.16 | 42.77 | cyto: 7, chlo: 5, plas: 1, pero: 1                                              |
| SITGLd11 | d | Solyc04g015300.3 | 5508593-5497992   | 4  | 2110 | 490 | 6.54 | 54.66 | chlo: 6, nucl: 4, mito: 2, cyto: 1, cysk: 1                                     |
| SITGLd12 | d | Solyc04g016360.3 | 7158486-7165657   | 4  | 1247 | 284 | 5.85 | 32.09 | cyto: 10, mito: 2, chlo: 1, extr: 1                                             |
| SITGLd13 | d | Solyc05g010680.2 | 4900485-4897375   | 5  | 1152 | 383 | 6.16 | 43.65 | nucl: 10, cyto: 2, chlo: 1, extr: 1                                             |
| SITGLd14 | d | Solyc05g050710.3 | 60840680-60838060 | 5  | 1664 | 397 | 8.82 | 44.65 | pero: 4, cyto: 3.5, cyto_nucl: 3.5, chlo: 3, nucl: 2.5, golg: 1                 |
| SITGLd15 | d | Solyc07g005130.3 | 145544-151215     | 7  | 1353 | 295 | 9.15 | 33.41 | cyto: 9, plas: 2, chlo: 1, nucl: 1, cysk: 1                                     |
| SITGLd16 | d | Solyc07g032170.3 | 36036253-36039504 | 7  | 842  | 168 | 9.2  | 19.01 | cyto: 6.5, cyto_nucl: 5, mito: 4, nucl: 2.5, chlo: 1                            |
| SITGLd17 | d | Solyc08g076350.3 | 60317705-60310093 | 8  | 1583 | 390 | 8.72 | 43.33 | chlo: 8, cyto: 4, nucl: 1, mito: 1                                              |
| SITGLd18 | d | Solyc09g083130.3 | 68810472-68803861 | 9  | 2701 | 767 | 6.01 | 83.55 | cyto: 6, mito: 3, nucl: 2, cysk: 2, chlo: 1                                     |
| SITGLE1  | e | Solyc01g098110.4 | 88704352-88719638 | 1  | 2273 | 689 | 7.79 | 77.12 | cyto: 8.5, cyto_E.R.: 5, chlo: 2, nucl: 1, pero: 1, golg: 1                     |
| SITGLE2  | e | Solyc01g108680.4 | 95922791-95924890 | 1  | 1191 | 366 | 6.85 | 40.6  | pero: 10, nucl: 2, chlo: 1, cyto: 1                                             |
| SITGLE3  | e | Solyc01g108740.3 | 95953723-95952490 | 1  | 1018 | 288 | 9.39 | 32.13 | chlo: 11, cyto: 1, mito: 1, E.R.: 1                                             |
| SITGLE4  | e | Solyc01g108750.2 | 95955876-95954713 | 1  | 967  | 297 | 6.87 | 32.81 | plas: 4, vacu: 3, E.R.: 3, nucl: 2, cyto: 1, golg: 1                            |
| SITGLE5  | e | Solyc01g108780.4 | 95971618-95970449 | 1  | 994  | 265 | 6.39 | 29.03 | chlo: 12, mito: 1, vacu: 1                                                      |

|          |   |                  |                    |   |      |     |      |       |                                                                           |
|----------|---|------------------|--------------------|---|------|-----|------|-------|---------------------------------------------------------------------------|
| SITGLE6  | e | Solyc01g108810.3 | 95992298-95989170  | 1 | 943  | 269 | 6.3  | 29.67 | cyto: 5, mito: 3, chlo: 2, nucl: 1, pero: 1, cysk: 1,<br>E.R._vacu: 1     |
| SITGLE7  | e | Solyc01g108820.1 | 95994206-95993151  | 1 | 768  | 255 | 9.03 | 28.32 | chlo: 8, vacu: 4.5, E.R._vacu: 3, cyto: 1                                 |
| SITGLE8  | e | Solyc02g064760.3 | 35858378-35860385  | 2 | 702  | 117 | 6.15 | 13.06 | chlo: 8, mito: 3, nucl: 1, cyto: 1, vacu: 1                               |
| SITGLE9  | e | Solyc02g064770.4 | 35880668-35885164  | 2 | 1188 | 295 | 5.23 | 33    | cyto: 10, nucl: 2, chlo: 1, E.R.: 1                                       |
| SITGLE10 | e | Solyc02g065240.3 | 36416349-36418203  | 2 | 1152 | 264 | 5.73 | 29.6  | cyto: 8.5, cyto_E.R.: 5, chlo: 3, nucl: 1, extr: 1                        |
| SITGLE11 | e | Solyc02g065250.2 | 36422010-36422996  | 2 | 594  | 197 | 5.48 | 22.4  | cyto: 6.5, cyto_E.R.: 4, chlo: 3, nucl: 1, mito: 1, extr: 1,<br>cysk: 1   |
| SITGLE12 | e | Solyc02g065260.4 | 36435241-36437123  | 2 | 750  | 170 | 4.96 | 19.15 | nucl: 4, cyto: 3.5, cyto_E.R.: 2.5, chlo: 2, plas: 2, extr:<br>1, cysk: 1 |
| SITGLE13 | e | Solyc02g065280.3 | 36443070-36448965  | 2 | 1036 | 265 | 5.56 | 30.19 | cyto: 4, chlo: 3, nucl: 3, mito: 2, extr: 1, pero: 1                      |
| SITGLE14 | e | Solyc02g089060.3 | 50960828-50966231  | 2 | 1543 | 379 | 9.21 | 41.45 | chlo: 8, mito: 3.5, cyto_mito: 2.5, nucl: 1, cysk: 1                      |
| SITGLE15 | e | Solyc02g092760.3 | 53721353-53722870  | 2 | 1109 | 275 | 4.94 | 30.49 | cysk: 6, cyto: 3, nucl: 2, extr: 2, mito: 1                               |
| SITGLE16 | e | Solyc02g092770.3 | 53725871-53727869  | 2 | 1159 | 272 | 4.79 | 30.22 | cyto: 6, nucl: 4, cysk: 2, chlo: 1, extr: 1                               |
| SITGLE17 | e | Solyc02g094430.4 | 54961901-54953503  | 2 | 2286 | 685 | 7.09 | 76.66 | chlo: 12.5, chlo_mito: 7.5, mito: 1.5                                     |
| SITGLE18 | e | Solyc03g044740.4 | 10460420-10465259  | 3 | 1113 | 301 | 6.92 | 34.73 | nucl: 7, cyto: 3, plas: 1.5, golg_plas: 1.5, mito: 1, cysk:<br>1          |
| SITGLE19 | e | Solyc03g044790.3 | 10543209-10540964  | 3 | 956  | 262 | 5.52 | 29.63 | cyto: 6, nucl: 3, chlo: 1, mito: 1, extr: 1, vacu: 1, cysk: 1             |
| SITGLE20 | e | Solyc03g044810.2 | 10567175-10566807  | 3 | 369  | 122 | 6.02 | 13.36 | cyto: 11, chlo: 2, cysk: 1                                                |
| SITGLE21 | e | Solyc03g070380.3 | 16206619-16211471  | 3 | 1028 | 264 | 5.64 | 29.93 | cyto: 5.5, cyto_E.R.: 4, chlo: 2, nucl: 2, extr: 2, E.R.:<br>1.5, mito: 1 |
| SITGLE22 | e | Solyc03g095290.3 | 56315780-56323128  | 3 | 1839 | 484 | 8.69 | 53.37 | plas: 7, chlo: 2, vacu: 2, E.R.: 2, pero: 1                               |
| SITGLE23 | e | Solyc03g095550.2 | 56759541-56757347  | 3 | 822  | 273 | 6    | 30.59 | cyto: 5, nucl: 3, golg: 3, chlo: 1, mito: 1, vacu: 1                      |
| SITGLE24 | e | Solyc04g077860.4 | 62744584-62742302  | 4 | 1178 | 304 | 9.68 | 34.23 | chlo: 6, nucl: 3, mito: 3, cyto: 2                                        |
| SITGLE25 | e | Solyc05g018403.1 | 20787617- 20789467 | 5 | 810  | 269 | 5.57 | 30.49 | nucl: 10, cyto: 3, mito: 1                                                |
| SITGLE26 | e | Solyc05g018413.1 | 20814474- 20819162 | 5 | 810  | 269 | 5.57 | 30.55 | nucl: 10, cyto: 3, mito: 1                                                |
| SITGLE27 | e | Solyc05g012180.3 | 5449535-5446238    | 5 | 1272 | 419 | 9.57 | 47.21 | chlo: 5, mito: 5, nucl: 2.5, cyto_nucl: 2, golg_plas: 1                   |
| SITGLE28 | e | Solyc06g048570.3 | 31262771-31260220  | 6 | 1244 | 280 | 5.42 | 31.03 | cyto: 5, golg: 3, vacu: 2, E.R._plas: 2, plas: 1.5, E.R.:<br>1.5, nucl: 1 |
| SITGLE29 | e | Solyc06g064870.4 | 40437593-40442243  | 6 | 1527 | 350 | 8.22 | 39.13 | cyto: 9, nucl: 4, extr: 1                                                 |
| SITGLE30 | e | Solyc07g054880.4 | 63059126-63060350  | 7 | 944  | 283 | 5.68 | 31.45 | chlo: 6, cyto: 3, extr: 3, vacu: 2                                        |
| SITGLE31 | e | Solyc09g014970.4 | 7327860-7326642    | 9 | 1053 | 294 | 9.27 | 32.87 | chlo: 5, nucl: 2, cyto: 2, E.R.: 2, mito: 1, plas: 1, extr: 1             |

Note: Chr, chromosome; CDS, length of coding sequence; AA, number of amino acid; pIs, theoretical isoelectric point; MW, molecular weight, KDa; The subcellular location of tomato lipase proteins was predicted using WoLF PSORT ([http://www.genscript.com/psort/wolf\\_psort.html](http://www.genscript.com/psort/wolf_psort.html)). Nucl, nucleus; Mito, mitochondria; Chlo, chloroplast; Cyto, cytosol; E.R, endoplasmic reticulum; Cysk, cytoskeleton; Plas, plasma membrane; Vacu: Tonoplast; Extr, extracellular. The numbers under the column heading 'Subcellular localization' reflect probability of potential subcellular localizations with the Testk used for kNN set at 14.





**Table S2.** Ka/Ks analysis for the duplicated *SITGL* gene pairs.

| Duplicated gene 1 | Duplicated gene 2 | Ka    | Ks    | Ka/Ks | Purifying selection | Duplicate type |
|-------------------|-------------------|-------|-------|-------|---------------------|----------------|
| <i>SILIPc11</i>   | <i>SILIPc22</i>   | 0.380 | 1.793 | 0.212 | Yes                 | Segmental      |
| <i>SILIPc9</i>    | <i>SILIPc10</i>   | 0.145 | 0.905 | 0.160 | Yes                 | Segmental      |
| <i>SILIPa19</i>   | <i>SILIPa20</i>   | 0.280 | 2.867 | 0.098 | Yes                 | Segmental      |
| <i>SILIPb19</i>   | <i>SILIPb25</i>   | 0.216 | 1.600 | 0.135 | Yes                 | Segmental      |
| <i>SILIPc6</i>    | <i>SILIPc19</i>   | 0.316 | 1.375 | 0.230 | Yes                 | Segmental      |
| <i>SILIPb16</i>   | <i>SILIPb28</i>   | 0.330 | 5.664 | 0.058 | Yes                 | Segmental      |
| <i>SILIPb13</i>   | <i>SILIPb21</i>   | 0.152 | 0.495 | 0.307 | Yes                 | Segmental      |
| <i>SILIPa13</i>   | <i>SILIPa26</i>   | 0.127 | 0.620 | 0.204 | Yes                 | Segmental      |
| <i>SILIPe23</i>   | <i>SILIPe28</i>   | 0.181 | 0.899 | 0.201 | Yes                 | Segmental      |
| <i>SILIPa9</i>    | <i>SILIPa10</i>   | 0.218 | 0.883 | 0.246 | Yes                 | Segmental      |
| <i>SILIPe14</i>   | <i>SILIPe27</i>   | 0.366 | 2.167 | 0.169 | Yes                 | Segmental      |
| <i>SILIPd5</i>    | <i>SILIPd8</i>    | 0.101 | 0.764 | 0.132 | Yes                 | Segmental      |
| <i>SILIPd3</i>    | <i>SILIPd6</i>    | 0.092 | 0.569 | 0.162 | Yes                 | Segmental      |
| <i>SILIPe8</i>    | <i>SILIPe15</i>   | 0.214 | 0.943 | 0.227 | Yes                 | Segmental      |
| <i>SILIPb8</i>    | <i>SILIPb11</i>   | 0.171 | 0.614 | 0.279 | Yes                 | Segmental      |
| <i>SILIPb5</i>    | <i>SILIPb25</i>   | 0.320 | 1.568 | 0.204 | Yes                 | Segmental      |
| <i>SILIPb1</i>    | <i>SILIPb17</i>   | 0.306 | 1.603 | 0.191 | Yes                 | Segmental      |
| <i>SILIPb1</i>    | <i>SILIPb32</i>   | 0.214 | 1.339 | 0.160 | Yes                 | Segmental      |

**Table S3.** The stress response-related *cis*-acting elements in putative promoter regions of *SITGL* genes.

| <i>cis</i> -acting elements | Number of genes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Function of the <i>cis</i> -acting element | Type of <i>cis</i> -elements |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------|
| as-1                        | <i>SILIPa26; SILIPc21; SILIPc19; SILIPb25; SILIPb24; SILIPc15; SILIPc14; SILIPc13; SILIPa23; SILIPa22; SILIPd17; SILIPa21; SILIPc9; SILIPd16; SILIPb22; SILIPd13; SILIPe26; SILIPc5; SILIPc4; SILIPc3; SILIPe27; SILIPe24; SILIPd11; SILIPa14; SILIPa13; SILIPa12; SILIPe22; SILIPe21; SILIPe19; SILIPd8; SILIPd7; SILIPe17; SILIPa9; SILIPe16; SILIPd5; SILIPa8; SILIPb12; SILIPd3; SILIPb8; SILIPe4; SILIPe3; SILIPa3; SILIPa1; SILIPe1; SILIPd2;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | N/A                                        | Plant growth and development |
| WRE3                        | <i>SILIPc22; SILIPa25; SILIPc16; SILIPc15; SILIPc12; SILIPd17; SILIPe30; SILIPa17; SILIPb13; SILIPe21; SILIPd7; SILIPe17; SILIPd6; SILIPe14; SILIPa8; SILIPb13; SILIPa6; SILIPe10; SILIPe9;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A                                        | Stress Response              |
| AT-TATA-Box                 | <i>SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPc21; SILIPb30; SILIPb29; SILIPb28; SILIPc20; SILIPc19; SILIPb27; SILIPc18; SILIPb26; SILIPd18; SILIPb25; SILIPa24; SILIPb24; SILIPe31; SILIPe31; SILIPc17; SILIPc16; SILIPc15; SILIPc14; SILIPc12; SILIPc11; SILIPc10; SILIPa23; SILIPa22; SILIPd17; SILIPa21; SILIPa20; SILIPb23; SILIPc8; SILIPa19; SILIPd15; SILIPc7; SILIPb22; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPb19; SILIPc6; SILIPc6; SILIPb18; SILIPb17; SILIPa17; SILIPd13; SILIPe26; SILIPe25; SILIPc5; SILIPc3; SILIPe27; SILIPd13; SILIPa16; SILIPe24; SILIPb16; SILIPd12; SILIPd11; SILIPa15; SILIPb15; SILIPb13; SILIPa14; SILIPd10; SILIPa12; SILIPe23; SILIPe22; SILIPe21; SILIPd9; SILIPe20; SILIPe19; SILIPd8; SILIPa11; SILIPd7; SILIPa10; SILIPe17; SILIPa9; SILIPe16; SILIPe15; SILIPd6; SILIPd6; SILIPe14; SILIPd5; SILIPa8; SILIPb12; SILIPb13; SILIPb10; SILIPa7; SILIPa6; SILIPd4; SILIPd3; SILIPe13; SILIPe12; SILIPe11; SILIPe10; SILIPe9; SILIPe8; SILIPa5; SILIPa4; SILIPb8; SILIPb7; SILIPb6; SILIPe5; SILIPe4; SILIPe2; SILIPe2; SILIPa3; SILIPa2; SILIPa1; SILIPb5; SILIPe1; SILIPb4; SILIPb3; SILIPb1; SILIPc22; SILIPc1; SILIPd1;</i> | N/A                                        | N/A                          |
| AAGAA-motif                 | <i>SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPb30; SILIPb29; SILIPc20; SILIPb26; SILIPb24; SILIPc17; SILIPc15; SILIPc14; SILIPc12; SILIPc11; SILIPc10; SILIPa22; SILIPa20; SILIPe30; SILIPc8; SILIPa19; SILIPc7; SILIPe28; SILIPb19; SILIPa18; SILIPc6; SILIPb18; SILIPd13; SILIPc5; SILIPc3; SILIPe27; SILIPa16; SILIPe24; SILIPd12; SILIPa15; SILIPb14; SILIPb13; SILIPa14; SILIPa13; SILIPd10; SILIPe23; SILIPe19; SILIPe18; SILIPd7; SILIPa9; SILIPd6; SILIPd5; SILIPa8; SILIPb12; SILIPb9; SILIPa7; SILIPd4; SILIPd3; SILIPe12; SILIPe9; SILIPa5; SILIPa4; SILIPb7; SILIPe7; SILIPe6; SILIPe5; SILIPa3; SILIPa2; SILIPb4; SILIPb2; SILIPc22;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | N/A                                        | Plant growth and development |
| Gap-box                     | <i>SILIPb30; SILIPc11; SILIPb14; SILIPd6; SILIPe2; SILIPd1;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A                                        | N/A                          |
| MYC                         | <i>SILIPb32; SILIPb31; SILIPa26; SILIPc21; SILIPb30; SILIPb29; SILIPa25; SILIPc20; SILIPc19; SILIPb27; SILIPc18; SILIPb26; SILIPd18; SILIPb25; SILIPb24; SILIPe30; SILIPe31; SILIPd12; SILIPc16; SILIPc15; SILIPc14; SILIPc13; SILIPc11; SILIPc10; SILIPa22; SILIPd17; SILIPa21; SILIPa20; SILIPc9; SILIPe30; SILIPc8; SILIPa19; SILIPd16; SILIPd15; SILIPc7; SILIPb22; SILIPe29; SILIPb20; SILIPb19; SILIPc6; SILIPb17; SILIPa17; SILIPc4; SILIPc3; SILIPd13; SILIPa16; SILIPb16; SILIPd12; SILIPa15; SILIPb15; SILIPb14; SILIPb13; SILIPa14; SILIPd10; SILIPa12; SILIPe23; SILIPe22; SILIPe21; SILIPd9; SILIPe20; SILIPe19; SILIPe18; SILIPd8; SILIPa10; SILIPa9; SILIPe16; SILIPe15; SILIPd6; SILIPd5; SILIPb12; SILIPb13; SILIPb10; SILIPb9; SILIPa7; SILIPa6; SILIPd4; SILIPd3; SILIPe13; SILIPe12; SILIPe11; SILIPe10; SILIPe9; SILIPe8; SILIPa4; SILIPb8; SILIPb7; SILIPb6; SILIPe7; SILIPe6; SILIPe4; SILIPa2; SILIPa1; SILIPe1; SILIPb4; SILIPb3; SILIPd2; SILIPb2; SILIPb1; SILIPc22; SILIPc1; SILIPd1;</i>                                                                                                                                                             | N/A                                        | Hormone responsive           |
| W-Box                       | <i>SILIPb31; SILIPc19; SILIPb27; SILIPb26; SILIPd18; SILIPc16; SILIPa23; SILIPa22; SILIPa21; SILIPa20; SILIPe28; SILIPe25; SILIPe27; SILIPb16; SILIPd12; SILIPa15; SILIPd10; SILIPe18; SILIPa9; SILIPe15; SILIPd6; SILIPd5; SILIPb10; SILIPa7; SILIPd3; SILIPe11; SILIPe9; SILIPa5; SILIPe7; SILIPe3; SILIPa3; SILIPa1; SILIPb4; SILIPb3; SILIPc1; SILIPd1;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A                                        | N/A                          |
| STRE                        | <i>SILIPb32; SILIPc22; SILIPb30; SILIPa25; SILIPb28; SILIPb26; SILIPb25; SILIPe31; SILIPe31; SILIPc15; SILIPc13; SILIPc12; SILIPc11; SILIPc10; SILIPa22; SILIPd17; SILIPa21; SILIPa20; SILIPc9; SILIPd16; SILIPc7; SILIPb21; SILIPb20; SILIPb19; SILIPa18; SILIPc6; SILIPa17; SILIPe25; SILIPc3; SILIPd13; SILIPe24; SILIPd11; SILIPb13; SILIPa14; SILIPd10; SILIPa12; SILIPe22; SILIPe21; SILIPd9; SILIPe17; SILIPa9; SILIPd5; SILIPb12; SILIPb9; SILIPa7; SILIPd4; SILIPd3; SILIPe13; SILIPe12; SILIPa5; SILIPb7; SILIPe6; SILIPe3; SILIPa3; SILIPb5; SILIPb2; SILIPb1; SILIPc22; SILIPc1;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A                                        | Stress Response              |
| MYB                         | <i>SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPc21; SILIPb30; SILIPa25; SILIPb28; SILIPc20; SILIPb26; SILIPd18; SILIPb25; SILIPb24; SILIPe31; SILIPe31; SILIPc17; SILIPc16; SILIPc14; SILIPc13; SILIPc10; SILIPa23; SILIPa22; SILIPd17; SILIPa21; SILIPa20; SILIPb23; SILIPc9; SILIPa19; SILIPd16; SILIPd15; SILIPc7; SILIPb22; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPb18; SILIPb17; SILIPa17; SILIPe25;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | N/A                                        | N/A                          |

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                 |                              |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------|
|                 | SILIPc4; SILIPc3; SILIPd13; SILIPa16; SILIPe24; SILIPd12; SILIPd11; SILIPb15; SILIPb14; SILIPb13; SILIPa14; SILIPd10; SILIPa12; SILIPe22; SILIPe21; SILIPd9; SILIPe20; SILIPe19; SILIPd8; SILIPd7; SILIPa9; SILIPe16; SILIPe15; SILIPd6; SILIPd5; SILIPa8; SILIPb12; SILIPb13; SILIPb10; SILIPb9; SILIPa7; SILIPd4; SILIPd3; SILIPe13; SILIPe12; SILIPe11; SILIPe10; SILIPe9; SILIPe8; SILIPb8; SILIPb7; SILIPe7; SILIPe6; SILIPe4; SILIPe3; SILIPa3; SILIPa2; SILIPa1; SILIPe1; SILIPb3; SILIPd2; SILIPb2; SILIPb1; SILIPc22; SILIPc1; SILIPd1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                 |                              |
| AT-rich element | SILIPc22; SILIPb27; SILIPb25; SILIPa24; SILIPe31; SILIPc15; SILIPc10; SILIPe30; SILIPe29; SILIPc6; SILIPa17; SILIPc5; SILIPc3; SILIPa12; SILIPe22; SILIPe21; SILIPe19; SILIPe18; SILIPd8; SILIPa11; SILIPe15; SILIPb9; SILIPa7; SILIPe9; SILIPe8; SILIPa4; SILIPb6; SILIPe5; SILIPe1; SILIPb4;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | binding site of AT-rich DNA binding protein (ATBP-1)            | Plant growth and development |
| CAAT-box        | SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPc21; SILIPb30; SILIPb29; SILIPa25; SILIPb28; SILIPc20; SILIPc19; SILIPb27; SILIPc18; SILIPb26; SILIPd18; SILIPb25; SILIPb24; SILIPe31; SILIPc31; SILIPc17; SILIPc16; SILIPc15; SILIPc14; SILIPc13; SILIPc12; SILIPc11; SILIPa23; SILIPa22; SILIPd17; SILIPb23; SILIPc9; SILIPe30; SILIPc8; SILIPa19; SILIPd16; SILIPd15; SILIPc7; SILIPb22; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPb19; SILIPa18; SILIPa18; SILIPc6; SILIPb18; SILIPb17; SILIPa17; SILIPd13; SILIPe26; SILIPe25; SILIPc5; SILIPc4; SILIPc3; SILIPe27; SILIPd13; SILIPa16; SILIPe24; SILIPb16; SILIPd12; SILIPd11; SILIPa15; SILIPa15; SILIPb15; SILIPb14; SILIPb13; SILIPa14; SILIPa13; SILIPd10; SILIPa12; SILIPe23; SILIPe22; SILIPe21; SILIPd9; SILIPe20; SILIPe19; SILIPe18; SILIPd8; SILIPa11; SILIPd7; SILIPa10; SILIPe17; SILIPa9; SILIPe16; SILIPe15; SILIPd6; SILIPe14; SILIPd5; SILIPa8; SILIPb12; SILIPb13; SILIPb9; SILIPa7; SILIPd4; SILIPd3; SILIPe13; SILIPe12; SILIPe11; SILIPe10; SILIPe9; SILIPe8; SILIPa5; SILIPa4; SILIPb8; SILIPb7; SILIPb6; SILIPe7; SILIPe5; SILIPe4; SILIPe3; SILIPe2; SILIPa3; SILIPa2; SILIPa1; SILIPb5; SILIPe1; SILIPb4; SILIPb3; SILIPd2; SILIPb2; SILIPb1; SILIPc22; SILIPc1; SILIPd1; | common cis-acting element in promoter and enhancer regions      | N/A                          |
| TATA-box        | SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPc21; SILIPb30; SILIPb29; SILIPa25; SILIPb28; SILIPc20; SILIPc19; SILIPb27; SILIPc18; SILIPb26; SILIPd18; SILIPb25; SILIPa24; SILIPb24; SILIPe31; SILIPc31; SILIPc17; SILIPc16; SILIPc15; SILIPc14; SILIPc13; SILIPc12; SILIPa23; SILIPa22; SILIPd17; SILIPa21; SILIPa20; SILIPb23; SILIPc9; SILIPc30; SILIPc8; SILIPa19; SILIPd16; SILIPd15; SILIPc7; SILIPb22; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPb19; SILIPa18; SILIPc6; SILIPb18; SILIPa17; SILIPd13; SILIPe26; SILIPe25; SILIPc5; SILIPc3; SILIPd13; SILIPa16; SILIPe24; SILIPb16; SILIPd12; SILIPd11; SILIPa15; SILIPb15; SILIPb14; SILIPb13; SILIPa14; SILIPd10; SILIPa12; SILIPe23; SILIPe22; SILIPe21; SILIPd9; SILIPe20; SILIPe19; SILIPe18; SILIPd8; SILIPa11; SILIPd7; SILIPa10; SILIPe17; SILIPa9; SILIPe16; SILIPd6; SILIPd5; SILIPa8; SILIPb13; SILIPb10; SILIPb9; SILIPa6; SILIPd4; SILIPd3; SILIPe13; SILIPe12; SILIPe11; SILIPe10; SILIPe9; SILIPe8; SILIPe8; SILIPa5; SILIPa4; SILIPb8; SILIPb7; SILIPb6; SILIPe7; SILIPb6; SILIPe5; SILIPe4; SILIPe3; SILIPa2; SILIPa1; SILIPb5; SILIPe1; SILIPb4; SILIPb3; SILIPd2; SILIPb2; SILIPb1; SILIPc22; SILIPc1;                                                                     | core promoter element around -30 of transcription start         | Hormone responsive           |
| F-Box           | SILIPb32;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | N/A                                                             | N/A                          |
| Box III         | SILIPb17;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | protein binding site                                            | N/A                          |
| A-box           | SILIPc22; SILIPc19; SILIPa22; SILIPb20; SILIPa16; SILIPa14; SILIPe22; SILIPa8; SILIPe6;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | cis-acting regulatory element                                   | N/A                          |
| ACE             | SILIPb28; SILIPe30; SILIPb22; SILIPb19; SILIPb17; SILIPa17; SILIPb16; SILIPa14; SILIPe15; SILIPd5; SILIPb13; SILIPe2; SILIPa2;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | cis-acting element involved in light responsiveness             | Light responsive             |
| Box 4           | SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPc21; SILIPb30; SILIPb29; SILIPa25; SILIPb28; SILIPc20; SILIPb27; SILIPc18; SILIPb26; SILIPd18; SILIPb25; SILIPa24; SILIPb24; SILIPe31; SILIPc31; SILIPc17; SILIPc16; SILIPc15; SILIPc14; SILIPc13; SILIPc11; SILIPc10; SILIPa23; SILIPa22; SILIPd17; SILIPa20; SILIPb23; SILIPc9; SILIPc30; SILIPc8; SILIPd16; SILIPd15; SILIPc7; SILIPb22; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPa18; SILIPc6; SILIPb17; SILIPa17; SILIPd13; SILIPe25; SILIPc5; SILIPc4; SILIPc3; SILIPe27; SILIPd13; SILIPa16; SILIPe24; SILIPb16; SILIPd12; SILIPd11; SILIPa15; SILIPb15; SILIPb14; SILIPb13; SILIPd10; SILIPa12; SILIPe22; SILIPe21; SILIPd9; SILIPe20; SILIPe19; SILIPd8; SILIPa11; SILIPd7; SILIPa10; SILIPe17; SILIPa9; SILIPe16; SILIPe15; SILIPd6; SILIPe14; SILIPd5; SILIPa8; SILIPb12; SILIPb10; SILIPb9; SILIPd3; SILIPe13; SILIPe11; SILIPe8; SILIPa4; SILIPb8; SILIPb7; SILIPb6; SILIPe5; SILIPe4; SILIPe2; SILIPa3; SILIPa2; SILIPa1; SILIPb5; SILIPe1; SILIPb4; SILIPb3; SILIPd2; SILIPb2; SILIPb1; SILIPc1; SILIPd1;                                                                                                                                                                               | part of a conserved DNA module involved in light responsiveness |                              |
| AE-box          | SILIPb31; SILIPb30; SILIPb27; SILIPb26; SILIPd18; SILIPb24; SILIPc17; SILIPc14; SILIPa19; SILIPc4; SILIPc3; SILIPb16; SILIPd12; SILIPa13; SILIPe23; SILIPd8; SILIPa9; SILIPe15; SILIPb12; SILIPb9; SILIPa7; SILIPa6; SILIPa5; SILIPa4; SILIPb7; SILIPb2; SILIPc22; SILIPd1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | part of a module for light response                             |                              |
| G-Box           | SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPc21; SILIPb29; SILIPa25; SILIPb28; SILIPc19; SILIPb27; SILIPc18; SILIPb25; SILIPa24; SILIPc17; SILIPc14; SILIPc13; SILIPc12; SILIPc11; SILIPa22; SILIPd17; SILIPa21; SILIPc9; SILIPe30; SILIPa19;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | cis-acting regulatory element involved in light responsiveness  |                              |

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                 |                              |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------|
|                    | SILIPc7; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPa18; SILIPc6; SILIPb17; SILIPa17; SILIPc5; SILIPd13; SILIPa16; SILIPe24; SILIPb16; SILIPd11; SILIPb15; SILIPa14; SILIPd10; SILIPa12; SILIPe22; SILIPe21; SILIPd9; SILIPe18; SILIPd8; SILIPe17; SILIPa9; SILIPe15; SILIPd6; SILIPe14; SILIPd5; SILIPb12; SILIPb13; SILIPa6; SILIPd4; SILIPd3; SILIPe13; SILIPe13; SILIPe11; SILIPe10; SILIPe9; SILIPa5; SILIPa4; SILIPb7; SILIPe7; SILIPe6; SILIPe4; SILIPe3; SILIPe2; SILIPe2; SILIPa3; SILIPa2; SILIPb5; SILIPb3; SILIPd2; SILIPb2; SILIPc22;                                                                                                                                                                                                                                           |                                                                 |                              |
| AAAC-motif         | SILIPb25;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | light responsive element                                        |                              |
| AT1-motif          | SILIPb31; SILIPc22; SILIPa25; SILIPb28; SILIPc13; SILIPe30; SILIPd15; SILIPb16; SILIPa14; SILIPa11; SILIPa10; SILIPe17; SILIPd4; SILIPd3; SILIPe9; SILIPa4; SILIPe2; SILIPa3;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | part of a light responsive module                               |                              |
| chs-CMA1a          | SILIPb31; SILIPa26; SILIPc20; SILIPa20; SILIPc7; SILIPb19; SILIPa18; SILIPb18; SILIPb17; SILIPa17; SILIPe26; SILIPe25; SILIPc4; SILIPd13; SILIPb16; SILIPa15; SILIPb15; SILIPe19; SILIPd7; SILIPe14; SILIPb10; SILIPb9; SILIPb7; SILIPe2; SILIPa1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | part of a light responsive element                              |                              |
| GATA-motif         | SILIPb32; SILIPc21; SILIPb29; SILIPb28; SILIPc18; SILIPb26; SILIPc17; SILIPc16; SILIPc15; SILIPa20; SILIPb23; SILIPc9; SILIPe28; SILIPb19; SILIPa17; SILIPd13; SILIPe24; SILIPa15; SILIPb14; SILIPb13; SILIPa12; SILIPe18; SILIPb12; SILIPb13; SILIPb9; SILIPa7; SILIPe9; SILIPa5; SILIPe1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | part of a light responsive element                              |                              |
| GT1-motif          | SILIPa26; SILIPb29; SILIPb28; SILIPa24; SILIPe31; SILIPe31; SILIPc12; SILIPa21; SILIPa20; SILIPc9; SILIPe30; SILIPa19; SILIPd16; SILIPe29; SILIPb19; SILIPe26; SILIPc4; SILIPa16; SILIPd11; SILIPa15; SILIPb15; SILIPb14; SILIPb13; SILIPa12; SILIPe22; SILIPe20; SILIPe19; SILIPd8; SILIPd7; SILIPa9; SILIPe15; SILIPd6; SILIPd5; SILIPb13; SILIPb9; SILIPe13; SILIPe12; SILIPe10; SILIPe9; SILIPe8; SILIPb8; SILIPb7; SILIPe5; SILIPe2; SILIPb2; SILIPc22;                                                                                                                                                                                                                                                                                                                                   | light responsive element                                        |                              |
| GA-motif           | SILIPb32; SILIPb29; SILIPc18; SILIPa24; SILIPa23; SILIPc9; SILIPd15; SILIPe28; SILIPc4; SILIPe21; SILIPa10; SILIPe15; SILIPd6; SILIPe9; SILIPe1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | part of a light responsive element                              |                              |
| I-box              | SILIPa25; SILIPb26; SILIPa24; SILIPc9; SILIPe30; SILIPe26; SILIPe24; SILIPd11; SILIPd9; SILIPa11; SILIPa7; SILIPa5; SILIPb7; SILIPb5; SILIPb1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | part of a light responsive element                              |                              |
| TCT-motif          | SILIPa25; SILIPc19; SILIPb27; SILIPb24; SILIPe31; SILIPc17; SILIPc14; SILIPa21; SILIPa20; SILIPb23; SILIPc9; SILIPd16; SILIPc7; SILIPb22; SILIPb21; SILIPe29; SILIPb20; SILIPb19; SILIPa17; SILIPd13; SILIPe26; SILIPb16; SILIPd12; SILIPa15; SILIPa14; SILIPd10; SILIPa12; SILIPd9; SILIPe20; SILIPe18; SILIPd8; SILIPa9; SILIPd6; SILIPe14; SILIPd5; SILIPe11; SILIPa5; SILIPa4; SILIPb7; SILIPe1; SILIPb4; SILIPb2;                                                                                                                                                                                                                                                                                                                                                                         | part of a light responsive element                              |                              |
| CATT-motif         | SILIPa24; SILIPc10;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | part of a light responsive element                              |                              |
| MRE                | SILIPa26; SILIPc22; SILIPb25; SILIPe31; SILIPe31; SILIPb23; SILIPc8; SILIPe26; SILIPc4; SILIPc3; SILIPa16; SILIPd12; SILIPa12; SILIPe16; SILIPd6; SILIPe11; SILIPe10; SILIPe9; SILIPb8; SILIPe7; SILIPe3; SILIPa2; SILIPb1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MYB binding site involved in light responsiveness               |                              |
| 3-AF1 binding site | SILIPa6; SILIPa4;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | light responsive element                                        |                              |
| TCCC-motif         | SILIPa24; SILIPa16; SILIPa15; SILIPb15; SILIPa6; SILIPd3; SILIPe12;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | part of a light responsive element                              |                              |
| Box II             | SILIPb25; SILIPc13; SILIPd11; SILIPd6; SILIPb8; SILIPe7;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | part of a light responsive element                              |                              |
| Sp1                | SILIPc15; SILIPc12; SILIPa17;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | light responsive element                                        |                              |
| ATCT-motif         | SILIPc21; SILIPc19; SILIPb25; SILIPe31; SILIPc15; SILIPa19; SILIPe28; SILIPb18; SILIPd13; SILIPb7;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | part of a conserved DNA module involved in light responsiveness |                              |
| Circadian          | SILIPe31; SILIPc13; SILIPa17; SILIPa16; SILIPa15; SILIPb15; SILIPe19; SILIPb10; SILIPb7; SILIPb6; SILIPb2; SILIPb1; SILIPc1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | cis-acting regulatory element involved in circadian control     | Plant growth and development |
| ERE                | SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPc21; SILIPb30; SILIPb29; SILIPc20; SILIPb27; SILIPc18; SILIPd18; SILIPa24; SILIPe31; SILIPe31; SILIPc17; SILIPc16; SILIPc14; SILIPc13; SILIPc12; SILIPc11; SILIPa20; SILIPb23; SILIPa19; SILIPd15; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPa18; SILIPc6; SILIPb17; SILIPa17; SILIPe26; SILIPe25; SILIPc5; SILIPd13; SILIPe24; SILIPd12; SILIPd11; SILIPa15; SILIPb13; SILIPd10; SILIPa12; SILIPe23; SILIPe22; SILIPe21; SILIPe20; SILIPe19; SILIPe18; SILIPd8; SILIPa11; SILIPd7; SILIPe17; SILIPe16; SILIPe15; SILIPd6; SILIPe14; SILIPd5; SILIPb13; SILIPa7; SILIPa6; SILIPd4; SILIPd3; SILIPe12; SILIPe10; SILIPe9; SILIPe8; SILIPb8; SILIPb6; SILIPe7; SILIPe3; SILIPe2; SILIPa2; SILIPb5; SILIPe1; SILIPb4; SILIPb3; SILIPc22; SILIPd1; | ethylene-responsive element                                     | Hormone responsive           |
| TGA-element        | SILIPc19; SILIPe31; SILIPc13; SILIPc12; SILIPd15; SILIPb20; SILIPe27; SILIPb16; SILIPb15; SILIPe22; SILIPa9; SILIPb12; SILIPa7; SILIPd3; SILIPe4; SILIPa1; SILIPc1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | auxin-responsive element                                        |                              |

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                       |                              |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------|
| AuxRR-core           | SILIPb32; SILIPc15; SILIPb12;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | cis-acting regulatory element involved in auxin responsiveness        |                              |
| CGTCA-motif          | SILIPa26; SILIPc21; SILIPc19; SILIPb25; SILIPb24; SILIPc15; SILIPc14; SILIPc13; SILIPa23; SILIPd17; SILIPa21; SILIPc9; SILIPd16; SILIPb22; SILIPc6; SILIPd13; SILIPe26; SILIPc5; SILIPc4; SILIPc3; SILIPe24; SILIPd11; SILIPd11; SILIPb15; SILIPe22; SILIPe21; SILIPe19; SILIPd8; SILIPe17; SILIPa9; SILIPe16; SILIPd5; SILIPa8; SILIPb8; SILIPe4; SILIPe3; SILIPa3; SILIPa1; SILIPe1; SILIPb3;                                                                                                                                                                                                                                                                                                                | cis-acting regulatory element involved in the MeJA-responsiveness     |                              |
| TGACG-motif          | SILIPa26; SILIPc21; SILIPc19; SILIPb25; SILIPb24; SILIPc15; SILIPc14; SILIPc13; SILIPa23; SILIPa22; SILIPd17; SILIPa21; SILIPc9; SILIPd16; SILIPb22; SILIPb20; SILIPc6; SILIPd13; SILIPe26; SILIPc4; SILIPe27; SILIPe24; SILIPb15; SILIPa14; SILIPe21; SILIPe19; SILIPd8; SILIPd7; SILIPe16; SILIPd5; SILIPa8; SILIPa7; SILIPd3; SILIPb8; SILIPe3; SILIPa3; SILIPd2; SILIPb1;                                                                                                                                                                                                                                                                                                                                  | cis-acting regulatory element involved in the MeJA-responsiveness     |                              |
| ABRE                 | SILIPb32; SILIPb31; SILIPa26; SILIPc22; SILIPb29; SILIPa25; SILIPb28; SILIPc19; SILIPb27; SILIPc18; SILIPb25; SILIPa24; SILIPe31; SILIPc14; SILIPc13; SILIPc12; SILIPc11; SILIPa22; SILIPd17; SILIPa21; SILIPc9; SILIPe30; SILIPa19; SILIPc7; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPb19; SILIPc6; SILIPb17; SILIPa17; SILIPc5; SILIPd13; SILIPa16; SILIPe24; SILIPb16; SILIPb15; SILIPa14; SILIPa13; SILIPd10; SILIPa12; SILIPd9; SILIPe18; SILIPd8; SILIPe17; SILIPa9; SILIPe15; SILIPd6; SILIPe14; SILIPd5; SILIPb12; SILIPb13; SILIPd4; SILIPd3; SILIPe13; SILIPe11; SILIPe10; SILIPe9; SILIPa5; SILIPb7; SILIPe7; SILIPe6; SILIPe4; SILIPe3; SILIPe2; SILIPa2; SILIPb3; SILIPd2; SILIPb2; SILIPc22; | cis-acting element involved in the abscisic acid responsiveness       |                              |
| TCA-element          | SILIPb32; SILIPc22; SILIPc21; SILIPa25; SILIPc18; SILIPb25; SILIPa24; SILIPc15; SILIPc13; SILIPd17; SILIPc9; SILIPe30 SILIPd16; SILIPc7; SILIPa17; SILIPe27; SILIPa16; SILIPd12; SILIPb14; SILIPa11; SILIPa10; SILIPb9; SILIPa6; SILIPd4; SILIPd3; SILIPe12; SILIPa4; SILIPb7; SILIPe7; SILIPe4; SILIPa2; SILIPd1;                                                                                                                                                                                                                                                                                                                                                                                             | cis-acting element involved in salicylic acid responsiveness          |                              |
| GARE-motif           | SILIPc21; SILIPa25; SILIPa23; SILIPa23; SILIPd17; SILIPb23; SILIPa19; SILIPe29; SILIPe21; SILIPe16;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | gibberellin-responsive element                                        |                              |
| P-box                | SILIPc20; SILIPc18; SILIPd18; SILIPa24; SILIPc12; SILIPc10; SILIPc9; SILIPd13; SILIPb16; SILIPb14; SILIPe23; SILIPd9; SILIPa11; SILIPe14; SILIPa8; SILIPe13; SILIPe8; SILIPe5; SILIPd2; SILIPc1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | gibberellin-responsive element                                        |                              |
| O <sup>2</sup> -site | SILIPc18; SILIPc16; SILIPa23; SILIPa22; SILIPd17; SILIPa21; SILIPc5; SILIPb15; SILIPe20; SILIPb10; SILIPd3; SILIPb7; SILIPe7; SILIPe6;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | cis-acting regulatory element involved in zein metabolism regulation  | Plant growth and development |
| GCN4_motif           | SILIPc21; SILIPb30; SILIPc10; SILIPa22; SILIPc9; SILIPd8; SILIPa11; SILIPb9; SILIPa7; SILIPe13; SILIPb8; SILIPb7; SILIPe2; SILIPb2;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | cis-regulatory element involved in endosperm expression               | Plant growth and development |
| CAT-box,             | SILIPa23; SILIPb23; SILIPc3; SILIPa16; SILIPe24; SILIPd7; SILIPd4; SILIPe10; SILIPb7; SILIPe4;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | cis-acting regulatory element related to meristem expression          | Plant growth and development |
| CCGTCC-box           | SILIPc22; SILIPa22; SILIPa16; SILIPa14; SILIPe22; SILIPa8; SILIPa6;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | cis-acting regulatory element related to meristem specific activation | N/A                          |
| HD-Zip 1, HD-Zip 2   | SILIPb28; SILIPc17; SILIPd15; SILIPe26; SILIPb14;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | element involved in differentiation of the palisade mesophyll cells   | N/A                          |
| CCAAT-box            | SILIPa25; SILIPc16; SILIPa21; SILIPa20; SILIPb23; SILIPb20; SILIPc4; SILIPe20; SILIPd8; SILIPd7; SILIPd6; SILIPa7; SILIPb1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MYBHv1 binding site                                                   | Plant growth and development |
| MBSI                 | SILIPb19; SILIPb13; SILIPe15; SILIPa2; SILIPb3; SILIPb1;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | MYB binding site involved in flavonoid biosynthetic genes regulation  | Stress Response              |
| MSA-like             | SILIPc19;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | cis-acting element involved in cell cycle regulation                  | N/A                          |
| ARE                  | SILIPb31; SILIPb30; SILIPb29; SILIPb28; SILIPb26; SILIPd18; SILIPb25; SILIPb24; SILIPc13; SILIPc12; SILIPc11; SILIPa23; SILIPb23; SILIPa19; SILIPd15; SILIPb22; SILIPb21; SILIPe29; SILIPb20; SILIPe28; SILIPc6; SILIPb17; SILIPe26; SILIPe25; SILIPc5; SILIPc4; SILIPa16; SILIPb16; SILIPd12; SILIPa15; SILIPb14; SILIPa14; SILIPa13; SILIPd10; SILIPa12; SILIPe22; SILIPe21; SILIPe19; SILIPa11; SILIPe16; SILIPd5; SILIPb12; SILIPb10; SILIPe11; SILIPe8; SILIPb6; SILIPe7; SILIPe6; SILIPe3; SILIPa3; SILIPa2; SILIPa1; SILIPe1; SILIPb3; SILIPd2; SILIPb1;                                                                                                                                                | cis-acting regulatory element essential for the anaerobic induction   | Stress Response              |
| GC-motif             | SILIPc13; SILIPd7; SILIPe17; SILIPe14; SILIPd4; SILIPe10; SILIPe10; SILIPe2;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | enhancer-like element involved in anoxic specific inducibility        |                              |
| MBS                  | SILIPa26; SILIPe31; SILIPe31; SILIPc14; SILIPc13; SILIPa23; SILIPa22; SILIPa21; SILIPb23; SILIPb23; SILIPc9; SILIPa19; SILIPd16; SILIPd15; SILIPb21; SILIPb17; SILIPc4; SILIPc3; SILIPa15; SILIPb15; SILIPb13; SILIPe22; SILIPa9; SILIPe16;                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MYB binding site involved in drought-inducibility                     |                              |

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                  |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
|                 | SILIPb12; SILIPb13; SILIPa7; SILIPa5; SILIPe7; SILIPe6; SILIPe4; SILIPe3; SILIPa2; SILIPd2; SILIPd1;                                                                                                                                                                                                                                                                                                                         |                                                                  |
| WUN-motif       | SILIPb32; SILIPa26; SILIPb30; SILIPb29; SILIPc20; SILIPc18; SILIPb26; SILIPb25; SILIPa24; SILIPc17; SILIPc15; SILIPe30 SILIPb21; SILIPe28; SILIPa18; SILIPc5; SILIPc4; SILIPe24; SILIPb16; SILIPd12; SILIPa15; SILIPb14; SILIPa12; SILIPe20; SILIPe19; SILIPd8; SILIPa11; SILIPd7; SILIPe16; SILIPd6; SILIPe14; SILIPb12; SILIPa7; SILIPe8; SILIPa4; SILIPb8; SILIPb7; SILIPe7; SILIPe2; SILIPa3; SILIPa2; SILIPb4; SILIPb3; | wound-responsive element                                         |
| LTR             | SILIPa25; SILIPb28; SILIPc19; SILIPc18; SILIPb26; SILIPc15; SILIPc12; SILIPc11; SILIPc7; SILIPb20; SILIPb18; SILIPc5; SILIPa16; SILIPa16; SILIPb14; SILIPe18; SILIPe15; SILIPb10; SILIPd4; SILIPe13; SILIPe10; SILIPb6; SILIPe6; SILIPd2; SILIPc22; SILIPd1;                                                                                                                                                                 | cis-acting element involved in low-temperature responsiveness    |
| TC-rich repeats | SILIPc20; SILIPc19; SILIPe31; SILIPe31; SILIPc17; SILIPa22; SILIPe30 SILIPa19; SILIPb22; SILIPa17; SILIPd11; SILIPa15; SILIPa14; SILIPd8; SILIPa11; SILIPd6; SILIPd5; SILIPe11; SILIPe2; SILIPb5; SILIPe1; SILIPb1;                                                                                                                                                                                                          | cis-acting element involved in defense and stress responsiveness |

**Table S4.** List of primers used for qRT-PCR.

| Gene locus            | Gene names      | Forward primer (5'-3')    | Reverse primer (5'-3')       | Function     |
|-----------------------|-----------------|---------------------------|------------------------------|--------------|
| <i>Solyc02g068070</i> | <i>SITGLa6</i>  | TGGAATTGGACATGGGATG       | GCAAGGCTGCTGATTTACC          | qRT-PCR      |
| <i>Solyc02g094040</i> | <i>SITGLa9</i>  | AACAGGCAGCCAGTTCTATTG     | GAATGAAGATTGCGATGACG         | qRT-PCR      |
| <i>Solyc03g119720</i> | <i>SITGLa13</i> | TTGGCACAGATCAAGAACACT     | TGATGACCTTGTCCTTACGC         | qRT-PCR      |
| <i>Solyc11g032200</i> | <i>SITGLa25</i> | TTATGGAATGTGGAAGAACCTC    | GGATTCAACCCCTTTAGTGTA        | qRT-PCR      |
| <i>Solyc12g038160</i> | <i>SITGLa26</i> | TGGTTCCTTTTCCCATTA        | TACGCCTCGCCTTCTGTC           | qRT-PCR      |
| <i>Solyc11g030950</i> | <i>SIACTIN7</i> | GATGAAGGACCTCTACGGTAAC    | AAGTGCAGAGAATATGTGGTG        | qRT-PCR      |
| <i>Solyc03g119720</i> | <i>SITGLa13</i> | ACACGGGGGACGAGCTCGGTACC   | CTCACCATGGTGTCGACTCTAGATTGCG | Sub-Cellular |
|                       |                 | ATCCATTTTCTCTCTCTATCTCGCC | CCTCTTTTCTCCTGTTCTT          | Localization |
| <i>Solyc02g094040</i> | <i>SITGLa9</i>  | ACACGGGGGACGAGCTCGGTACC   | CTCACCATGGTGTCGACTCTAGATTTCG | Sub-Cellular |
|                       |                 | GACTTTCTCCATTCTCTTCTCTCT  | ATTCTCAATGATTTCG             | Localization |