

Additional file 4. RT-qPCR *versus* microarray results.  $\Delta\Delta Ct$  – change of expression of the gene of interest between cold-treated (c) and control (k) plants estimated by means of RT-qPCR. For RT-qPCR results, data are means of 4 biological experiments (with 3 technical replications)  $\pm$  SD. For microarray results, \*means statistical significance at false discovery rate correction set at 0.05 (p-value = 0.0054); ns –difference not significant.

|            | Real-time PCR<br>expression change $\Delta\Delta Ct$ |                |                | Microarrays<br>expression change $\log_2(c/k)$ |         |         |
|------------|--|----------------|----------------|--|---------|---------|
|            | S68911   | S50676         | S160           | S68911   | S50676  | S160    |
| MZ00000759 | 1.05<br>+0.26  | 0.97<br>+0.28  | 1.32<br>+0.49  | 2.23*  | 1.27ns  | 1.04ns  |
| MZ00001512 | 2.17<br>+0.04  | 0.52<br>+0.25  | 0.50<br>+0.18  | 2.48*  | 0.19ns  | 0.64ns  |
| MZ00003671 | 2.54<br>+0.55  | 1.00<br>+1.08  | 0.51<br>+0.07  | 2.9*   | 2.3*    | 0.13ns  |
| MZ00013934 | 0.25<br>+1.84  | 0.54<br>+0.23  | 0.13<br>+1.05  | 1.77*  | 0.42ns  | 0.7ns   |
| MZ00016708 | 1.53<br>+0.62  | 1.54<br>+1.07  | 0.35<br>+0.22  | 1.83*  | 2.32*   | 0.16ns  |
| MZ00018865 | -2.69<br>+0.73                                       | -2.28<br>+0.61 | -1.25<br>+0.65 | -2.17*   | -2.47*  | -1*     |
| MZ00019074 | 3.39<br>+1.3   | 2.84<br>+0.12  | 0.59<br>+0.53  | 2.22*  | 2.5*    | 0.07ns  |
| MZ00019555 | 2.05<br>+0.46  | -0.16<br>+0.1  | -0.48<br>+0.09 | 1.96*  | -0.07ns | -0.5ns  |
| MZ00019753 | 0.95<br>+0.98  | 0.01<br>+0.54  | 0.3<br>+0.27   | 1.26*  | 0.32ns  | 0.45ns  |
| MZ00020524 | 2.01<br>+0.79  | 1.64<br>+0.54  | -0.61<br>+0.27 | 2.12*  | 0.65ns  | -0.32ns |
| MZ00020668 | 0.95<br>+0.79  | -0.51<br>+0.82 | 0.30<br>+0.33  | 1.7*   | -0.68ns | 0.31ns  |
| MZ00021278 | -1.98<br>+0.67                                       | -0.71<br>+0.29 | -0.63<br>+0.05 | -2.1*  | -0.88ns | -0.8ns  |
| MZ00023547 | 2.77<br>+0.02  | 1.49<br>+0.15  | -0.21<br>+0.36 | 3.29*  | 1.2ns   | -0.07ns |

|            |                 |                 |                 |         |         |         |
|------------|-----------------|-----------------|-----------------|---------|---------|---------|
| MZ00024268 | -0.77<br>+-0.92 | 0.09<br>+-0.81  | 0.29<br>+-0.16  | -0.2ns  | 0.08ns  | 0.12ns  |
| MZ00026192 | 0.48<br>+-0.47  | -0.27<br>+-0.1  | 3.78<br>+-1.02  | 0.54ns  | -0.31ns | 1.9*    |
| MZ00026395 | -1.64<br>+-0.15 | -0.83<br>+-0.47 | -0.33<br>+-1.28 | -1.63*  | -0.69ns | -0.38ns |
| MZ00026450 | 2.11<br>+-0.22  | 0.47<br>+-0.39  | 0.37<br>+-0.18  | 2.3*    | 1.32ns  | 0.16ns  |
| MZ00029516 | -1.26<br>+-0.45 | -1.54<br>+-2.49 | -0.88<br>+-0.07 | -1.37*  | -1.5*   | -0.47ns |
| MZ00030116 | -1.40<br>+-1.26 | 2.85<br>+-0.32  | 3.61<br>+-0.98  | 0.54ns  | 2.91*   | 2.14*   |
| MZ00030250 | -0.47<br>+-0.08 | -0.44<br>+-0.34 | 1.36<br>+-0.42  | -0.37ns | -0.24ns | 1.56*   |
| MZ00032781 | -0.07<br>+-0.52 | -0.35<br>+-0.2  | -0.75<br>+-0.52 | -1.85*  | -0.58ns | -0.9ns  |
| MZ00034417 | 0.69<br>+-0.11  | -0.28<br>+-0.2  | 1.38<br>+-0.53  | 0.79ns  | -0.4ns  | 1.14*   |
| MZ00038695 | 2.09<br>+-1.23  | 0.62<br>+-0.23  | 0.33<br>+-0.13  | 1.77*   | 0.45ns  | 0.06ns  |
| MZ00040859 | 0.97<br>+-0.94  | 0.34<br>+-0.31  | -0.18<br>+-0.03 | 2.45*   | 0.45ns  | -0.27ns |
| MZ00043309 | 1.32<br>+-0.5   | 1.10<br>+-0.54  | 0.13<br>+-0.04  | 2.36*   | 1.97*   | 0.12ns  |
| MZ00044642 | -2.61<br>+-0.54 | -1.12<br>+-0.18 | -0.52<br>+-0.43 | -2.57*  | -1.2ns  | -0.7ns  |
| MZ00050355 | -1.95<br>+-0.38 | 0.27<br>+-0.23  | -0.36<br>+-0.21 | -1.97*  | 0.11ns  | -0.6ns  |
| MZ00050420 | 1.41<br>+-0.44  | 0.54<br>+-0.27  | 0.43<br>+-0.05  | 1.79*   | 0.7ns   | 0.48ns  |
| MZ00056664 | -1.78<br>+-1.07 | 0.28<br>+-0.09  | -0.72<br>+-0.2  | -2.32*  | 0.05ns  | -0.68ns |