**Supplementary file 5**

**Primer sequence of the genes used for qRT-PCR**

|  |  |  |
| --- | --- | --- |
| Sr. No. | Gene Name | Accession No. |
| 1 | qTaMtMnSODF | ACCTCAAGCCTATTAGCGAGG |
| 2 | qTaMtMnSODR | CTTGTAAAGCAGCACCCTCTG |
| 3 | qTaCSODpF | TCGGTGACATGACTAATGGGTG |
| 4 | qTaCSODpR | CCCAACAACTGCATTAGGGC |
| 5 | qTaCSODcF | CCTTCCTCCTCCCCAACTACT |
| 6 | qTaCSODcR | GCCCTTCCTTGAGTCCAGTG |
| 7 | qTaFeSODpF | CTGCAGCAGATCGAGAAGGA |
| 8 | qTaFeSODpR | ACAAGCCAAACCCAACCAGA |
| 9 | qTaCATF | GCACTACGTCAAGTTCCACTG |
| 10 | qTaCATR | GAAGTCGAACCGCTCCTCATA |
| 11 | qTaAPXF | ATGGAGCGAATGCTGGTCTT |
| 12 | qTaAPXR | TCAGGTGGACATTGTTCGGG |
| 13 | qTaTPSF | CTCGATGTTCCACGGGTTCA |
| 14 | qTaTPSR | CTACGAGTACGTTGCCTCCC |
| 15 | qTaTPPF | CAAGTACTTCCCTGCTGCCA |
| 16 | qTaTPPR | CGAGCAGGTTGGAAGAGGTT |
| 17 | qTa BADHF | ACCTGAGTACAGATCTTGTGGG |
| 18 | qTa BADHR | AGCCAGCATCGGATTGAACA |
| 19 | qTaP5CSF | TTTTGGACTCGGTGCTGAGG |
| 20 | qTaP5CSR | CCCTCGTAAGAGCCATCGTG |
| 21 | qTa Actin-F | TCCAGCCATCTCATGTTGGT |
| 22 | qTa Actin-R | TGATCTCCTTGCTCATGCGA |
| 23 | qTaRBOHf-F | TGTTCGCGTGGAGGTTCG |
| 24 | qTaRBOHf-R | TGTTGAGCTTGAGCGTCTCG |
| 25 | qTaSOS1-F | TGTGCAAATATCGCGTGCTG |
| 26 | qTaSOS1-R | CGCAATCCCGACCAAACAAG |
| 27 | qTaNHX-F | TGAGTGGCATTCTAACCGTGT |
| 28 | qTaNHX-F | ATGTCCAATGCATCCATCCCG |

**Supplementary File 2**

**NCBI accession No of partial/complete CDS cloned**

1. Triticum aestivum cultivar HD 2009 catalase mRNA, partial cds, 725 bp linear mRNA, JQ230563.1 GI:383793907
2. Triticum aestivum cultivar HD 2687 catalase mRNA, partial cds, 725 bp linear mRNA, JQ230564.1 GI:383793909
3. Triticum aestivum cultivar WL 711 catalase mRNA, partial cds, 725 bp linear mRNA, JQ230565.1 GI:383793911
4. Triticum aestivum cultivar Kharchia65 catalase mRNA, partial cds 725 bp linear mRNA  JQ230562.1 GI:383793905
5. Triticum aestivum cultivar Kharchia65 plastid thylakoid-bound ascorbate peroxidase mRNA, partial cds; nuclear gene for plastid product, 652 bp linear mRNA, JQ230566.1 GI:383793913
6. Triticum aestivum cultivar HD 2009 plastid thylakoid-bound ascorbate peroxidase mRNA, partial cds; nuclear gene for plastid product, 652 bp linear mRNA, JQ230567.1 GI:383793915
7. Triticum aestivum cultivar HD 2687 plastid thylakoid-bound ascorbate peroxidase mRNA, partial cds; nuclear gene for plastid product, 652 bp linear mRNA , JQ230568.1 GI:383793917
8. Triticum aestivum cultivar WL 711 plastid thylakoid-bound ascorbate peroxidase mRNA, partial cds; nuclear gene for plastid product, 652 bp linear mRNA, JQ230569.1 GI:383793919
9. Triticum aestivum cultivar WL 711 mitochondrial manganese superoxide dismutase mRNA, partial cds; nuclear gene for mitochondrial product 472 bp linear mRNA  JQ230561.1 GI:383793903
10. Triticum aestivum cultivar HD 2687 mitochondrial manganese superoxide dismutase mRNA, partial cds; nuclear gene for mitochondrial product 472 bp linear mRNA  JQ230560.1 GI:383793901
11. Triticum aestivum cultivar HD 2009 mitochondrial manganese superoxide dismutase mRNA, partial cds; nuclear gene for mitochondrial product 472 bp linear mRNA  JQ230559.1 GI:383793899
12. Triticum aestivum cultivar Kharchia65 mitochondrial manganese superoxide dismutase mRNA, partial cds; nuclear gene for mitochondrial product 472 bp linear mRNA  JQ230558.1 GI:383793897
13. Triticum aestivum cultivar HD 2687 chloroplast iron-superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 520 bp linear mRNA  JQ269680.1 GI:380875819
14. Triticum aestivum cultivar WL 711 chloroplast iron-superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 520 bp linear mRNA  JQ269681.1 GI:380875821
15. Triticum aestivum cultivar HD 2009 chloroplast iron-superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 520 bp linear mRNA  JQ269679.1 GI:380875817
16. Triticum aestivum cultivar Kharchia 65 chloroplast iron-superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 520 bp linear mRNA  JQ269678.1 GI:380875815
17. Triticum aestivum cultivar WL 711 cytosolic Cu/Zn superoxide dismutase mRNA, complete cds 746 bp linear mRNA  JQ269677.1 GI:380875813
18. Triticum aestivum cultivar HD 2687 cytosolic Cu/Zn superoxide dismutase mRNA, complete cds 746 bp linear mRNA  JQ269676.1 GI:380875811
19. Triticum aestivum cultivar HD 2009 cytosolic Cu/Zn superoxide dismutase mRNA, complete cds 746 bp linear mRNA  JQ269675.1 GI:380875809
20. Triticum aestivum cultivar Kharchia 65 cytosolic Cu/Zn superoxide dismutase mRNA, complete cds 746 bp linear mRNA
21. Triticum aestivum cultivar WL 711 chloroplast Cu/Zn superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 710 bp linear mRNA  JQ269673.1 GI:380875805
22. Triticum aestivum cultivar HD 2687 chloroplast Cu/Zn superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 710 bp linear mRNA  JQ269672.1 GI:380875803
23. Triticum aestivum cultivar HD 2009 chloroplast Cu/Zn superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 710 bp linear mRNA  JQ269671.1 GI:380875801
24. Triticum aestivum cultivar Kharchia 65 chloroplast Cu/Zn superoxide dismutase mRNA, partial cds; nuclear gene for chloroplast product 710 bp linear mRNA
25. Triticum aestivum cultivar WL 711 betaine aldehyde dehydrogenase-like protein mRNA, partial cds 682 bp linear mRNA  JQ269664.1 GI:380875787
26. Triticum aestivum cultivar HD 2687 betaine aldehyde dehydrogenase-like protein mRNA, partial cds 682 bp linear mRNA  JQ269663.1 GI:380875785
27. Triticum aestivum cultivar HD 2009 betaine aldehyde dehydrogenase-like protein mRNA, partial cds 682 bp linear mRNA  JQ269662.1 GI:380875783
28. Triticum aestivum cultivar Kharchia65 betaine aldehyde dehydrogenase-like protein mRNA, partial cds 682 bp linear mRNA  JQ269661.1 GI:380875781
29. Triticum aestivum cultivar WL 711 delta 1-pyrroline-5-carboxylate synthetase mRNA, partial cds 669 bp linear mRNA  JQ063082.1 GI:380467935
30. Triticum aestivum cultivar HD 2687 delta 1-pyrroline-5-carboxylate synthetase mRNA, partial cds 667 bp linear mRNA  JQ063081.1 GI:380467933
31. Triticum aestivum cultivar HD 2009 delta 1-pyrroline-5-carboxylate synthetase mRNA, partial cds 674 bp linear mRNA  JQ063080.1 GI:380467931
32. Triticum aestivum cultivar Kharchia65 delta 1-pyrroline-5-carboxylate synthetase mRNA, partial cds 678 bp linear mRNA  JQ063079.1 GI:380467929
33. Triticum aestivum cultivar WL 711 trehalose phosphate phosphatase mRNA, partial cds 632 bp linear mRNA  JQ073565.1 GI:380447814
34. Triticum aestivum cultivar HD 2687 trehalose phosphate phosphatase mRNA, partial cds 632 bp linear mRNA  JQ073564.1 GI:380447812
35. Triticum aestivum cultivar HD 2009 trehalose phosphate phosphatase mRNA, partial cds 633 bp linear mRNA  JQ073563.1 GI:380447810
36. Triticum aestivum cultivar Kharchia65 trehalose phosphate phosphatase mRNA, partial cds 633 bp linear mRNA  JQ073562.1 GI:380447808
37. Triticum aestivum cultivar WL 711 trehalose-6-phosphate synthase mRNA, partial cds 591 bp linear mRNA  JQ073561.1 GI:380447806
38. Triticum aestivum cultivar HD 2687 trehalose-6-phosphate synthase mRNA, partial cds 591 bp linear mRNA  JQ073560.1 GI:380447804
39. Triticum aestivum cultivar HD 2009 trehalose-6-phosphate synthase mRNA, partial cds 597 bp linear mRNA  JQ073559.1 GI:380447802
40. Triticum aestivum cultivar Kharchia65 trehalose-6-phosphate synthase mRNA, partial cds 597 bp linear mRNA  JQ073558.1 GI:380447800

**Supplementary file 1**

**Primer sequence of the genes used for RTPCR**

|  |  |  |
| --- | --- | --- |
| Sr. No. | Primer Name | Sequence 5'-3' |
| 1 | qTaMtMnSODF | ACCTCAAGCCTATTAGCGAGG |
| 2 | qTaMtMnSODR | CTTGTAAAGCAGCACCCTCTG |
| 3 | qTaCSODpF | TCGGTGACATGACTAATGGGTG |
| 4 | qTaCSODpR | CCCAACAACTGCATTAGGGC |
| 5 | qTaCSODcF | CCTTCCTCCTCCCCAACTACT |
| 6 | qTaCSODcR | GCCCTTCCTTGAGTCCAGTG |
| 7 | qTaFeSODpF | CTGCAGCAGATCGAGAAGGA |
| 8 | qTaFeSODpR | ACAAGCCAAACCCAACCAGA |
| 9 | qTaCATF | GCACTACGTCAAGTTCCACTG |
| 10 | qTaCATR | GAAGTCGAACCGCTCCTCATA |
| 11 | qTaAPXF | ATGGAGCGAATGCTGGTCTT |
| 12 | qTaAPXR | TCAGGTGGACATTGTTCGGG |
| 13 | qTaTPSF |  |
| 14 | qTaTPSR |  |
| 15 | qTaTPPF |  |
| 16 | qTaTPPR |  |
| 17 | qTa BADHF |  |
| 18 | qTa BADHR |  |
| 19 | qTaP5CSF |  |
| 20 | qTaP5CSR |  |
| 21 | qTa Actin-F |  |
| 22 | qTa Actin-R |  |
| 23 | qTaRBOHf-F | TGTTCGCGTGGAGGTTCG |
| 24 | qTaRBOHf-R | TGTTGAGCTTGAGCGTCTCG |
| 25 | qTaSOS1-F |  |
| 26 | qTaSOS1-R |  |
| 27 | qTaNHX-F |  |
| 28 | qTaNHX-F |  |