

**Additional file 6: Table S3.** Primers used in qPCR to analyze the level of histone transcripts at “TSS region”, “histone body” and “3’ end” region.

| Gene name                           | Amplified region                    | Primer sequence 5'-3'           |
|-------------------------------------|-------------------------------------|---------------------------------|
| H3F3A                               | TSS                                 | F: GCCATCTTTCAATTGTGTTCCGC      |
|                                     |                                     | R: CCTTCTCCTTCGGCTGG            |
|                                     | histone body                        | F: CAAGTGAGGCCTATCTGGT          |
|                                     |                                     | R: TAAGCACGTTCTCCACGT           |
|                                     | 3' end                              | F: CTAATTTTTAGAAGCTTGCCACT      |
|                                     |                                     | R: AAGTTCAATCTACTTACAGATTCCA    |
| H2AFZ                               | TSS                                 | F: GCTGGCGGTAAGGCTG             |
|                                     |                                     | R: CTGCAAGCCGGCTCTC             |
|                                     | histone body                        | F: GTGTCATTCCACACATCCAC         |
|                                     |                                     | R: CTGGACAGCTGTTAGAGTATTTAG     |
|                                     | 3' end                              | F: CTAGCAGCAATAACTAAGCAC        |
|                                     |                                     | R: GCCTAAGAACTGACAATCC          |
| HIST1H2BI                           | TSS                                 | F:CTGAACCAGCTAAGTCAGCTCCC       |
|                                     |                                     | R: GTTCATAATCCCATAGCCTTGGAC     |
|                                     | histone body                        | F: GAGATCCAAACGGCTGTGCG         |
|                                     |                                     | R:GTCGTTAGCGCTTTTACCCAGG        |
|                                     | 3' end                              | F: TGTAAGCGTCACCAAGGAGT         |
|                                     |                                     | R: TTAAGATGGTGGTGTGCGGG         |
| HIST1H3D                            | TSS                                 | F: CGGGTGGGAAAGCGCCA            |
|                                     |                                     | R: CGTGCCGGGCCGGTAA             |
|                                     | histone body                        | F: AGGACTTCAAGACTGATCTGCGTTTT   |
|                                     |                                     | R: CTTGGCGTGAATGGCGCAT          |
|                                     | 3' end                              | F: GCCACCTTTGACCAACCAAC         |
|                                     |                                     | R: AGCTTGGGGCGTCCTTATTC         |
| HIST1H4D                            | TSS                                 | F: GCGGAAAGGGTCTAGGTAAGGGT      |
|                                     |                                     | R: CTTTCAGCACTCCGCGAGTT         |
|                                     | histone body                        | F: CGATGCTGTACCTACACGGAA        |
|                                     |                                     | R: TGCGCTTGAGCGCGTAC            |
|                                     | 3' end                              | F: GCTTCATATCTTACTGGCCGGTGA     |
|                                     |                                     | R: GGAGACTGCAGATTGCCGAGATC      |
| HIST2H2AC                           | TSS                                 | F: CCTCCAGTCCCAGTAGGG           |
|                                     |                                     | R: CCGCCGCCATGTAGACG            |
|                                     | histone body                        | F: GCGCATCATCCCTCGTCACCTC       |
|                                     |                                     | R: GTGGCTTTCGGTTTTCTTTGGTAACAGA |
|                                     | 3' end                              | F: GAGCGCGACTTGGCCTTA           |
|                                     |                                     | R: GCAATTTTAGCCGTAATGTCAGGA     |
| intergenic region 1                 | F: TGCTGGGATTACAGGTGTGAGC           |                                 |
|                                     | R: ATTCTGGGGACATCTTCAGGAActCA       |                                 |
| intergenic region 2                 | F: TGCTGATAATACTGCTACGAAGGCTG       |                                 |
|                                     | R: TTTGTGGTTCATCTTTTGAAGTTTCTTTGAGT |                                 |
| PC4                                 | RT-qPCR                             | F: GGCAGTGATTCTGACAGTGAGGTTG    |
|                                     |                                     | R: CTGCTGCTGCTGCTCTGTTTAG       |
| F, forward primer, R reverse primer |                                     |                                 |