

**Supplementary Table 2. Primer sequences and PCR conditions used in this study.****qRT-PCR**

| Gene                           | Primer set, forward/reverse                                             | Lenght | Annealing temperature |
|--------------------------------|-------------------------------------------------------------------------|--------|-----------------------|
| <i>PTPRR</i><br>(transcript 1) | F:5'- CCAGCAGCAAATGTAATTGTG -3'<br>R:5'- GGAGACACAAACAGTTCAATACTG -3'   | 173 bp | 53°                   |
| <i>PTPRR</i><br>(transcript 2) | F:5'- TTTTCTCAAGCTCTCATTTAACG -3'<br>R:5'- ATCTGTAAAGAATCATCAAACACG -3' | 173 bp | 55°                   |
| <i>PBGD</i>                    | F:5'- CAACGGCGGAAGAAAACAG -3'<br>R:5'- TCTCTCCAATCTTAGAGAGTG -3'        | 195 bp | 55°                   |

***PTPRR-1* methylation analysis**

| Technique                    | Primer set, forward/reverse                                                                                          | Lenght | Annealing temperature |
|------------------------------|----------------------------------------------------------------------------------------------------------------------|--------|-----------------------|
| COBRA<br>(fresh samples)     | F:5'- GTTGGGTTTTTAGTAATTATAGTAAG -3<br>R:5'- CACCAACTTCAACCTCCCTA -3                                                 | 368 bp | 56°                   |
| COBRA<br>(FFPE samples)      | F:5'- GI <sup>*</sup> GATGGAGTTTATTTGTTTAAAGT - 3<br>R:5'- CI <sup>*</sup> ACAAATACCTAACCTTCTAAAC -3                 | 202 bp | 52°                   |
| Bisulfite genomic sequencing | F:5'- AGGAATTCGTTGGGTTTTTAGTAATTATAGTAAG - 3<br>R:5'- AAGGATCCACCAACTTCAACCTCCCTA -3<br><br>I <sup>*</sup> = Inosine | 383 bp | 56°                   |

**ChIP**

| Gene / Locus                               | Primer set, forward/reverse                                          | Lenght | Annealing temperature |
|--------------------------------------------|----------------------------------------------------------------------|--------|-----------------------|
| <i>RPL30</i>                               | F:5'- CCGGATCCTAAAAATCCTGTC -3<br>R:5'- AGACATCTCTCCACGTGAATC -3     | 144 bp | 58°                   |
| <i>KCNA1</i>                               | F:5'- TGACGGTGATGTCTGGGGAG -3<br>R:5'- ACGAGCGTGTGGGGAACTG -3        | 187 bp | 58°                   |
| <i>SAT2</i>                                | F:5'- ATCGAATGGAAATGAAAGGAGTCA -3<br>R:5'- GACCATTGGATGATTGCAGTCA -3 | 160 bp | 58°                   |
| <i>PTPRR</i><br>(5' flanking transcript 1) | F:5'- GATGGAGCCTACTCTGCTCC -3<br>R:5'- TTCTGGACGCCCAGAAGCC -3        | 184 bp | 60°                   |