

**Supplementary Table 3; List of differentially expressed genes between high-REST patients and low-REST patients (volcano plot).**

| Gene name      | Protein array | Exp diff (HR-LR) | p-value  | -log10(p-value) |
|----------------|---------------|------------------|----------|-----------------|
| <i>PTPN14</i>  |               | 0.86             | 9.43E-14 | 13.03           |
| <i>ACSF2</i>   |               | 0.75             | 2.19E-13 | 12.66           |
| <i>IGF2R</i>   |               | 0.80             | 3.36E-10 | 9.47            |
| <i>SPRED1</i>  |               | 0.61             | 5.89E-09 | 8.23            |
| <i>NOTCH3</i>  |               | 0.80             | 8.72E-09 | 8.06            |
| <i>DLL1</i>    |               | 0.53             | 2.63E-08 | 7.58            |
| <i>NRP2</i>    |               | 0.57             | 3.18E-08 | 7.50            |
| <i>NOTCH2</i>  |               | 0.35             | 5.50E-08 | 7.26            |
| <i>E2F8</i>    |               | 0.72             | 5.80E-08 | 7.24            |
| <i>GABRA1</i>  |               | -0.70            | 1.11E-07 | 6.95            |
| <i>TNFAIP3</i> |               | 0.64             | 1.80E-07 | 6.75            |
| <i>JAG1</i>    |               | 0.66             | 1.88E-07 | 6.73            |
| <i>E2F7</i>    |               | 0.64             | 1.91E-07 | 6.72            |
| <i>LOXL2</i>   |               | 0.65             | 2.11E-07 | 6.68            |
| <i>GADD45A</i> |               | 0.46             | 3.06E-07 | 6.51            |
| <i>MIR24-1</i> |               | -0.65            | 7.55E-07 | 6.12            |
| <i>ANGPT2</i>  | 1             | 0.68             | 7.97E-07 | 6.10            |
| <i>COL4A2</i>  |               | 0.62             | 1.07E-06 | 5.97            |
| <i>EPHB4</i>   |               | 0.36             | 1.49E-06 | 5.83            |
| <i>PGF</i>     | 1             | 0.86             | 1.51E-06 | 5.82            |
| <i>COL5A2</i>  |               | 0.60             | 1.72E-06 | 5.76            |
| <i>SCG2</i>    |               | -0.63            | 1.77E-06 | 5.75            |
| <i>PARVA</i>   |               | 0.65             | 1.78E-06 | 5.75            |
| <i>TGFB3</i>   |               | 0.51             | 1.87E-06 | 5.73            |
| <i>FSTL1</i>   |               | 0.43             | 2.23E-06 | 5.65            |
| <i>ETS1</i>    |               | 0.65             | 2.55E-06 | 5.59            |
| <i>ITGA5</i>   |               | 0.62             | 3.86E-06 | 5.41            |
| <i>NGFR</i>    |               | -0.51            | 4.24E-06 | 5.37            |
| <i>ADA</i>     |               | 0.62             | 5.17E-06 | 5.29            |
| <i>PTK2B</i>   |               | -0.75            | 9.91E-06 | 5.00            |
| <i>CPE</i>     |               | -0.44            | 1.49E-05 | 4.83            |
| <i>HDAC7</i>   |               | 0.49             | 1.59E-05 | 4.80            |
| <i>PECAM1</i>  |               | 0.59             | 1.68E-05 | 4.77            |
| <i>MIR27B</i>  |               | -0.55            | 2.24E-05 | 4.65            |
| <i>EGF</i>     | 1             | 0.40             | 4.57E-05 | 4.34            |
| <i>NDRG4</i>   |               | -0.44            | 4.69E-05 | 4.33            |
| <i>PML</i>     |               | 0.59             | 5.08E-05 | 4.29            |
| <i>HIF1A</i>   |               | 0.51             | 5.48E-05 | 4.26            |
| <i>MIR30C2</i> |               | 0.52             | 7.39E-05 | 4.13            |
| <i>CLIP3</i>   |               | -0.26            | 8.26E-05 | 4.08            |
| <i>NOTCH1</i>  |               | 0.56             | 9.30E-05 | 4.03            |
| <i>DPP4</i>    | 1             | -0.67            | 1.08E-04 | 3.97            |
| <i>STC1</i>    |               | 0.35             | 1.09E-04 | 3.96            |
| <i>MIR23B</i>  |               | -0.50            | 1.66E-04 | 3.78            |
| <i>FLT1</i>    |               | 0.52             | 1.74E-04 | 3.76            |

|                |   |       |          |      |
|----------------|---|-------|----------|------|
| <i>IGFBP7</i>  |   | 0.53  | 1.87E-04 | 3.73 |
| <i>EFNB2</i>   |   | 0.49  | 1.94E-04 | 3.71 |
| <i>SDC4</i>    |   | 0.38  | 2.78E-04 | 3.56 |
| <i>VWF</i>     |   | 0.52  | 2.99E-04 | 3.52 |
| <i>KDR</i>     |   | 0.44  | 3.03E-04 | 3.52 |
| <i>NOTCH4</i>  |   | 0.53  | 3.08E-04 | 3.51 |
| <i>CDH5</i>    |   | 0.48  | 3.18E-04 | 3.50 |
| <i>ANG</i>     | 1 | 0.47  | 3.55E-04 | 3.45 |
| <i>SMAD1</i>   |   | -0.27 | 4.53E-04 | 3.34 |
| <i>ESM1</i>    |   | 0.33  | 4.99E-04 | 3.30 |
| <i>MIA3</i>    |   | 0.38  | 5.13E-04 | 3.29 |
| <i>DLL4</i>    |   | 0.52  | 6.14E-04 | 3.21 |
| <i>EPHA2</i>   |   | 0.21  | 6.47E-04 | 3.19 |
| <i>COL18A1</i> | 1 | 0.50  | 6.57E-04 | 3.18 |
| <i>VEGFC</i>   | 1 | 0.34  | 7.12E-04 | 3.15 |
| <i>IL32</i>    |   | 0.46  | 7.25E-04 | 3.14 |
| <i>UCP2</i>    |   | 0.45  | 7.27E-04 | 3.14 |
| <i>SLCO1A2</i> |   | -0.48 | 7.42E-04 | 3.13 |
| <i>FILIP1</i>  |   | 0.43  | 7.57E-04 | 3.12 |
| <i>VCAN</i>    |   | 0.38  | 9.09E-04 | 3.04 |
| <i>SLCO2A1</i> |   | 0.47  | 9.16E-04 | 3.04 |
| <i>ROBO4</i>   |   | 0.35  | 1.00E-03 | 3.00 |
| <i>EFNB3</i>   |   | -0.36 | 1.01E-03 | 2.99 |
| <i>AREG</i>    | 1 | 0.38  | 1.11E-03 | 2.96 |
| <i>PGLYRP1</i> |   | -0.40 | 1.22E-03 | 2.91 |
| <i>FGFR4</i>   |   | -0.40 | 1.37E-03 | 2.86 |
| <i>SRF</i>     |   | 0.37  | 1.39E-03 | 2.86 |
| <i>MYH9</i>    |   | 0.40  | 1.47E-03 | 2.83 |
| <i>RHOB</i>    |   | -0.35 | 1.58E-03 | 2.80 |
| <i>PROX1</i>   |   | 0.24  | 1.59E-03 | 2.80 |
| <i>ADAMTS1</i> | 1 | 0.36  | 1.59E-03 | 2.80 |
| <i>IGFBP3</i>  | 1 | 0.45  | 1.73E-03 | 2.76 |
| <i>FGF2</i>    | 1 | 0.28  | 1.92E-03 | 2.72 |
| <i>MIR155</i>  |   | 0.40  | 1.97E-03 | 2.71 |
| <i>HDAC9</i>   |   | -0.20 | 2.04E-03 | 2.69 |
| <i>STARD13</i> |   | 0.32  | 2.08E-03 | 2.68 |
| <i>CCBE1</i>   |   | 0.16  | 2.26E-03 | 2.65 |
| <i>ACVRL1</i>  |   | 0.40  | 2.43E-03 | 2.61 |
| <i>MIR15B</i>  |   | 0.40  | 2.70E-03 | 2.57 |
| <i>TGFB1</i>   | 1 | 0.27  | 2.87E-03 | 2.54 |
| <i>ITGB1</i>   |   | 0.35  | 2.94E-03 | 2.53 |
| <i>FABP4</i>   |   | 0.41  | 3.05E-03 | 2.52 |
| <i>BTG1</i>    |   | -0.34 | 3.17E-03 | 2.50 |
| <i>GDNF</i>    | 1 | -0.21 | 3.51E-03 | 2.45 |
| <i>LUM</i>     |   | 0.29  | 3.55E-03 | 2.45 |
| <i>ADAMTS9</i> |   | 0.30  | 3.78E-03 | 2.42 |
| <i>PRG2</i>    |   | 0.38  | 3.80E-03 | 2.42 |
| <i>LEF1</i>    |   | -0.29 | 3.86E-03 | 2.41 |
| <i>SMTN</i>    |   | 0.33  | 4.07E-03 | 2.39 |

|          |   |       |          |      |
|----------|---|-------|----------|------|
| CCND2    |   | 0.48  | 4.67E-03 | 2.33 |
| MMRN2    |   | 0.38  | 4.91E-03 | 2.31 |
| TGFA     |   | -0.19 | 5.32E-03 | 2.27 |
| PLK2     |   | 0.28  | 5.72E-03 | 2.24 |
| SERPINE2 |   | -0.37 | 5.81E-03 | 2.24 |
| CLEC14A  |   | 0.38  | 6.16E-03 | 2.21 |
| MMP7     |   | 0.28  | 6.34E-03 | 2.20 |
| HMOX1    |   | 0.33  | 6.83E-03 | 2.17 |
| MIR495   |   | -0.29 | 7.26E-03 | 2.14 |
| MIR15A   |   | 0.36  | 7.61E-03 | 2.12 |
| MIR221   |   | 0.35  | 7.83E-03 | 2.11 |
| EPGN     |   | 0.37  | 8.62E-03 | 2.06 |
| INHBA    | 1 | 0.34  | 8.89E-03 | 2.05 |
| ETV4     |   | 0.29  | 9.00E-03 | 2.05 |
| SLIT2    |   | 0.28  | 9.32E-03 | 2.03 |
| ABL1     |   | 0.27  | 9.51E-03 | 2.02 |
| PTX3     | 1 | 0.28  | 1.01E-02 | 2.00 |
| TNFRSF21 |   | 0.26  | 1.02E-02 | 1.99 |
| F2RL1    |   | 0.38  | 1.02E-02 | 1.99 |
| IL18     | 1 | 0.36  | 1.03E-02 | 1.99 |
| IL6      |   | 0.32  | 1.04E-02 | 1.98 |
| TEK      |   | 0.33  | 1.11E-02 | 1.96 |
| CSF2     | 1 | -0.36 | 1.18E-02 | 1.93 |
| THBS1    | 1 | 0.27  | 1.19E-02 | 1.92 |
| JAG2     |   | 0.25  | 1.24E-02 | 1.91 |
| TIMP2    |   | 0.33  | 1.25E-02 | 1.90 |
| MMP9     | 1 | 0.37  | 1.27E-02 | 1.89 |
| CHRNA7   |   | 0.29  | 1.31E-02 | 1.88 |
| UNC5B    |   | -0.28 | 1.34E-02 | 1.87 |
| BDNF     |   | -0.40 | 1.36E-02 | 1.87 |
| ITGB5    |   | 0.29  | 1.41E-02 | 1.85 |
| GPLD1    |   | -0.24 | 1.42E-02 | 1.85 |
| MIR410   |   | -0.29 | 1.45E-02 | 1.84 |
| MIR34A   |   | 0.37  | 1.46E-02 | 1.84 |
| PDGFA    | 1 | 0.16  | 1.57E-02 | 1.80 |
| MIR29C   |   | -0.32 | 1.68E-02 | 1.77 |
| MIR126   |   | 0.32  | 1.71E-02 | 1.77 |
| SERPINA5 |   | 0.32  | 1.86E-02 | 1.73 |
| AMOT     |   | 0.24  | 1.89E-02 | 1.72 |
| MIR138-2 |   | -0.18 | 1.90E-02 | 1.72 |
| PDPN     |   | 0.26  | 2.00E-02 | 1.70 |
| COL2A1   |   | 0.10  | 2.03E-02 | 1.69 |
| FGFR2    |   | 0.30  | 2.05E-02 | 1.69 |
| SPRY1    |   | 0.27  | 2.35E-02 | 1.63 |
| QSOX1    |   | 0.32  | 2.38E-02 | 1.62 |
| PKM      |   | 0.19  | 2.40E-02 | 1.62 |
| OTULIN   |   | 0.28  | 2.41E-02 | 1.62 |
| NDRG3    |   | -0.33 | 2.43E-02 | 1.61 |
| ABI3BP   |   | 0.29  | 2.44E-02 | 1.61 |

|         |   |       |          |      |
|---------|---|-------|----------|------|
| CARD10  |   | 0.15  | 2.45E-02 | 1.61 |
| ANGPTL4 |   | 0.35  | 2.56E-02 | 1.59 |
| MIR377  |   | -0.24 | 2.58E-02 | 1.59 |
| LEP     | 1 | -0.28 | 2.61E-02 | 1.58 |
| F2RL2   |   | -0.37 | 2.66E-02 | 1.57 |
| BMPER   |   | -0.34 | 2.68E-02 | 1.57 |
| MIR17   |   | 0.30  | 2.72E-02 | 1.57 |
| MIR18A  |   | 0.30  | 2.72E-02 | 1.57 |
| MIR19A  |   | 0.30  | 2.72E-02 | 1.57 |
| MIR19B1 |   | 0.30  | 2.72E-02 | 1.57 |
| MIR20A  |   | 0.30  | 2.72E-02 | 1.57 |
| MIR92A1 |   | 0.30  | 2.72E-02 | 1.57 |
| DKK3    |   | -0.36 | 2.73E-02 | 1.56 |
| VEGFA   |   | 0.29  | 2.76E-02 | 1.56 |
| VEGFA   | 1 | 0.33  | 2.78E-02 | 1.56 |
| TBXA2R  |   | 0.32  | 2.83E-02 | 1.55 |
| PDCD10  |   | 0.31  | 2.85E-02 | 1.54 |
| MST1R   |   | -0.28 | 2.86E-02 | 1.54 |
| RHOA    |   | 0.20  | 2.90E-02 | 1.54 |
| ENG     | 1 | 0.28  | 3.11E-02 | 1.51 |
| MMP13   |   | 0.31  | 3.11E-02 | 1.51 |
| TIMP1   | 1 | 0.25  | 3.13E-02 | 1.50 |
| POSTN   |   | 0.23  | 3.32E-02 | 1.48 |
| DMD     |   | -0.16 | 3.38E-02 | 1.47 |
| EMCN    |   | 0.29  | 3.39E-02 | 1.47 |
| COL3A1  |   | 0.22  | 3.48E-02 | 1.46 |
| MIR26A1 |   | -0.28 | 3.49E-02 | 1.46 |
| EGLN1   |   | 0.27  | 3.62E-02 | 1.44 |
| EPN2    |   | -0.25 | 3.72E-02 | 1.43 |
| NUAK1   |   | 0.25  | 3.93E-02 | 1.41 |
| NNAT    |   | 0.23  | 3.97E-02 | 1.40 |
| TIMP3   |   | 0.24  | 4.02E-02 | 1.40 |
| E2F2    |   | 0.26  | 4.03E-02 | 1.40 |
| THBS2   | 1 | 0.25  | 4.31E-02 | 1.37 |
| RNH1    |   | -0.26 | 4.58E-02 | 1.34 |
| RHOJ    |   | -0.26 | 4.69E-02 | 1.33 |
| MIR150  |   | -0.26 | 4.79E-02 | 1.32 |
| FBXW7   |   | -0.39 | 4.82E-02 | 1.32 |
| MIR22   |   | -0.26 | 4.86E-02 | 1.31 |