

Supplementary Data

SUPPLEMENTARY TABLE S1. LIST OF GENES ASSOCIATED WITH CELL MOVEMENT

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|---------------------|---|---|---|--|--|---|
| IL12A | interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) | -2.32 | -1.44 | -2.00 | -1.70 | -1.85 |
| ITGA6 | integrin, alpha 6 | -2.20 | 1.29 | -0.31 | -0.95 | -0.36 |
| SPHK1 | sphingosine kinase 1 | -2.21 | -0.46 | -1.47 | -0.76 | -1.22 |
| HBEGF | heparin-binding EGF-like growth factor | -2.08 | 0.39 | 0.36 | -0.08 | -0.97 |
| JAG1 | jagged 1 (Alagille syndrome) | 1.06 | 2.10 | 0.40 | -0.65 | -0.90 |
| ITGB2 | integrin, beta 2 (complement component 3 receptor 3 and 4 subunit) | 0.46 | 2.17 | 0.18 | 0.35 | -0.02 |
| JUB | jub, ajuba homolog (<i>Xenopus laevis</i>) | 1.01 | 2.38 | 1.33 | 1.29 | 1.29 |
| NR4A2 | nuclear receptor subfamily 4, group A, member 2 | -0.03 | 2.32 | 1.24 | 0.27 | -0.18 |
| FOXE1 ^a | forkhead box E1 (thyroid transcription factor 2) | -0.09 | 2.33 | 1.66 | 0.25 | 0.40 |
| RELN | reelin | 2.35 | 2.10 | -0.03 | 0.98 | 0.14 |
| HDAC9 | histone deacetylase 9 | 0.94 | 2.59 | 0.13 | 1.46 | 0.94 |
| CXCL10 | chemokine (C-X-C motif) ligand 10 | -0.65 | 2.37 | -0.04 | 1.93 | -0.41 |
| BDKRB1 | bradykinin receptor B1 | -0.59 | -0.78 | -2.41 | -1.83 | -1.72 |
| ITGA2 ^a | integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor) | -2.97 | -2.77 | -3.01 | -0.16 | -0.28 |
| ITGA2 ^a | integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor) | -2.99 | -2.76 | -3.14 | 0.00 | -0.49 |
| FN1 ^a | fibronectin 1 | -0.51 | -1.60 | -2.03 | -1.29 | -1.54 |
| TGFB2 | transforming growth factor, beta 2 | -1.24 | 1.78 | 2.11 | -0.75 | -0.02 |
| FOXE1 ^a | forkhead box E1 (thyroid transcription factor 2) | -0.14 | 2.81 | 2.09 | 0.40 | 0.58 |
| FN1 ^a | fibronectin 1 | 0.21 | -0.86 | -2.04 | -1.40 | -1.34 |
| TPM1 ^a | tropomyosin 1 (alpha) | -0.45 | 0.11 | -2.15 | -2.84 | -1.85 |
| TIE1 | tyrosine kinase with immunoglobulin-like and EGF-like domains 1 | -0.02 | 0.00 | 0.03 | 2.35 | 1.59 |
| TPM1 ^a | tropomyosin 1 (alpha) | -0.39 | 0.16 | -2.04 | -2.68 | -1.86 |
| VCAN | versican | -0.75 | -0.31 | -0.70 | -2.37 | -1.53 |
| MMP14 | matrix metalloproteinase 14 (membrane-inserted) | 0.46 | -0.74 | -2.35 | -2.73 | -1.54 |
| FGF2 | fibroblast growth factor 2 (basic) | -0.78 | 0.39 | -2.78 | -2.41 | -2.00 |
| NEXN ^a | nexilin (F actin binding protein) | 1.57 | 2.15 | 2.01 | 1.62 | 2.48 |
| TEK | TEK tyrosine kinase, endothelial | 0.88 | 3.33 | 2.38 | 2.99 | 3.81 |
| NF2 ^a | neurofibromin 2 (merlin) | -1.35 | -1.55 | -1.15 | -1.86 | -2.63 |
| NF2 ^a | neurofibromin 2 (merlin) | -1.14 | -1.42 | -1.22 | -2.14 | -2.32 |
| IGFBP3 ^a | insulin-like growth factor binding protein 3 | -1.20 | -0.94 | -2.56 | -4.01 | -3.93 |
| NF2 ^a | neurofibromin 2 (merlin) | -1.05 | -1.32 | -1.15 | -2.01 | -2.21 |
| TPM1 ^a | tropomyosin 1 (alpha) | -0.84 | -0.99 | 0.65 | 1.18 | 2.00 |
| TPM1 ^a | tropomyosin 1 (alpha) | -0.63 | 0.00 | -2.01 | -2.56 | -2.04 |
| IGFBP3 ^a | insulin-like growth factor binding protein 3 | -0.86 | -0.84 | -3.68 | -4.87 | -4.36 |
| CITED2 | Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 2 | -0.22 | 0.83 | -0.09 | -1.49 | -3.42 |

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SUPPLEMENTARY TABLE S1. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|----------------------|---|---|---|--|--|---|
| SMAD7 | SMAD family member 7 | -1.41 | -1.02 | -1.72 | -1.27 | -2.37 |
| NEXN ^a | nexilin (F actin binding protein) | 1.44 | 2.02 | 1.79 | 1.54 | 2.24 |
| IGFBP5 | insulin-like growth factor binding protein 5 | -1.45 | -0.73 | 0.13 | -4.34 | -5.18 |
| TPM1 ^a | tropomyosin 1 (alpha) | -0.54 | 0.03 | -2.01 | -2.75 | -2.21 |
| HMOX1 | heme oxygenase (decycling) 1 | -3.06 | -3.57 | -2.95 | -2.66 | -3.16 |
| LAMA4 | laminin, alpha 4 | 1.22 | 0.19 | -2.69 | -2.49 | -3.93 |
| ABHD2 | abhydrolase domain containing 2 | -0.44 | -0.15 | -1.68 | -1.80 | -2.19 |
| CHRD | chordin | -0.30 | -0.95 | -1.52 | -1.57 | -2.06 |
| ADA | adenosine deaminase | -1.84 | -2.08 | -2.35 | -2.44 | -2.31 |
| PDGFA | platelet-derived growth factor alpha polypeptide | -0.91 | -0.96 | -2.08 | -1.93 | -2.25 |
| COL18A1 ^a | collagen, type XVIII, alpha 1 | 0.67 | -2.26 | -3.08 | -3.29 | -3.96 |
| COL18A1 ^a | collagen, type XVIII, alpha 1 | 0.11 | -1.17 | -1.16 | -1.21 | -2.09 |
| F10 | coagulation factor X | -0.41 | -1.10 | -1.49 | -1.25 | -2.07 |
| VEGFA | vascular endothelial growth factor A | -1.06 | 0.91 | -0.68 | 0.23 | 2.05 |
| PDPN ^a | podoplanin | -1.02 | -1.38 | -2.57 | -5.00 | -5.71 |
| F2R | coagulation factor II (thrombin) receptor | -0.30 | 1.57 | 1.18 | 2.05 | 2.04 |
| FURIN | furin (paired basic amino acid cleaving enzyme) | -0.87 | -0.91 | -2.14 | -2.00 | -3.00 |
| LYN | v-yes-1 Yamaguchi sarcoma viral related oncogene homolog | -0.11 | -1.24 | -2.22 | -2.19 | -2.65 |
| S1PR1 | sphingosine-1-phosphate receptor 1 | -1.22 | -0.62 | -0.07 | -1.76 | -3.10 |
| CHST3 | carbohydrate (chondroitin 6) sulfotransferase 3 | -0.50 | 0.15 | -0.36 | -1.32 | -2.12 |
| IGF2 | insulin-like growth factor 2 (somatomedin A) | -2.16 | -3.41 | -3.67 | -3.72 | -4.21 |
| PRR5 | proline rich 5 (renal) | -0.13 | -0.70 | -1.47 | -1.73 | -2.09 |
| F3 | coagulation factor III (thromboplastin, tissue factor) | -1.20 | 1.76 | -0.19 | -2.25 | -2.17 |
| ERBB4 | v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian) | -0.06 | -0.06 | -0.01 | 1.21 | 2.61 |
| PDPN ^a | podoplanin | -1.17 | -1.39 | -2.28 | -3.59 | -4.62 |
| CCK | cholecystokinin | -1.86 | -1.42 | -1.90 | -1.73 | -2.61 |
| LAMC1 | laminin, gamma 1 (formerly LAMB2) | 1.41 | 0.67 | -0.84 | -1.84 | -2.07 |
| WNT2 | wingless-type MMTV integration site family member 2 | -0.59 | 0.06 | -1.43 | -2.31 | -2.75 |
| DNER | delta/notch-like EGF repeat containing | -0.24 | 0.39 | 1.77 | 3.30 | 3.93 |
| IL8 | interleukin 8 | -5.30 | 2.92 | -4.91 | -3.01 | -3.77 |
| GDNF | glial cell derived neurotrophic factor | -1.38 | -0.54 | -0.07 | -0.92 | -2.00 |
| TWIST1 ^a | twist homolog 1 (<i>Drosophila</i>) | 0.04 | -0.43 | -0.12 | -0.75 | -2.56 |
| SCARB1 | scavenger receptor class B, member 1 | -0.61 | 0.18 | -1.23 | -1.40 | -2.62 |
| KITLG | KIT ligand | -1.18 | 0.32 | -0.87 | -1.53 | -2.19 |
| CXCL12 ^a | chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1) | -1.48 | -3.38 | -0.24 | -2.16 | -3.29 |
| KIT | v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog | 1.37 | 1.01 | 2.25 | -1.14 | -2.71 |
| MET | met proto-oncogene (hepatocyte growth factor receptor) | 0.08 | 0.51 | -0.03 | -0.08 | 2.03 |
| CLASP2 | cytoplasmic linker associated protein 2 | 0.32 | 0.39 | 0.43 | 1.51 | 2.46 |
| TNS3 | tensin 3 | 1.64 | -1.09 | -4.45 | -2.86 | -3.16 |
| NTN1 | netrin 1 | 0.09 | -2.34 | -2.75 | -2.86 | -3.10 |
| CXCL3 ^a | chemokine (C-X-C motif) ligand 3 | -4.85 | 0.99 | -4.31 | -2.35 | -3.95 |
| ICAM1 | intercellular adhesion molecule 1 | -1.09 | 0.51 | -2.29 | -2.09 | -2.85 |

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SUPPLEMENTARY TABLE S1. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|---------------------|---|---|---|--|--|---|
| ID1 | inhibitor of DNA binding 1, dominant negative helix-loop- helix protein | -1.69 | -2.43 | -2.64 | -2.58 | -3.73 |
| IL6 | interleukin 6 (interferon, beta 2) | 0.13 | 3.73 | 0.02 | -0.83 | -2.59 |
| TWIST1 ^a | twist homolog 1 (<i>Drosophila</i>) | 0.17 | -0.41 | -0.03 | -0.51 | -2.31 |
| COL5A1 ^a | collagen, type V, alpha 1 | 1.19 | 0.37 | -1.88 | -2.52 | -3.19 |
| AMOT | angiominin | 1.67 | 2.64 | 3.86 | 3.00 | 2.61 |
| B4GALT1 | UDP-Gal:betaGlcNAc beta 1,4- galactosyltransferase, polypeptide 1 | -0.52 | -0.39 | -1.40 | -1.64 | -2.80 |
| THBS4 | thrombospondin 4 | 0.09 | -1.91 | -2.12 | -1.98 | -2.32 |
| THBS1 ^a | thrombospondin 1 | 0.79 | 0.14 | -2.31 | -2.74 | -2.85 |
| CAV2 | caveolin 2 | -0.91 | -0.55 | -2.97 | -2.86 | -3.21 |
| IL6R | interleukin 6 receptor | 0.49 | -0.22 | -1.01 | -1.11 | -2.29 |
| CCL2 | chemokine (C-C motif) ligand 2 | 0.78 | 2.55 | -1.39 | -2.94 | -3.73 |
| CXCL12 ^a | chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1) | -1.53 | -4.57 | -1.78 | -3.78 | -6.05 |
| PPAP2B | phosphatidic acid phosphatase type 2B | 0.12 | -0.75 | -2.02 | -4.64 | -4.56 |
| PDGFRB | platelet-derived growth factor receptor, beta polypeptide | 0.48 | -1.53 | -3.78 | -4.45 | -4.59 |
| DCLK1 | doublecortin-like kinase 1 | 0.61 | -1.46 | -1.64 | -1.58 | -2.38 |
| NDN | necdin homolog (mouse) | 0.59 | -4.85 | -4.72 | -4.75 | -5.27 |
| NRCAM | neuronal cell adhesion molecule | -0.12 | -0.95 | -1.27 | -1.20 | -2.10 |
| TGFBR3 | transforming growth factor, beta receptor III | 0.19 | 0.53 | -0.24 | -1.35 | -2.15 |
| THBS1 ^a | thrombospondin 1 | 1.21 | -0.09 | -3.01 | -3.26 | -3.08 |
| PLAT | plasminogen activator, tissue | -2.78 | -0.33 | -3.67 | -3.98 | -3.77 |
| CTHRC1 | collagen triple helix repeat containing 1 | -0.81 | -3.67 | -3.85 | -3.79 | -4.10 |
| CTGF | connective tissue growth factor | -0.91 | -1.26 | -2.58 | -3.71 | -4.22 |
| COL5A1 ^a | collagen, type V, alpha 1 | 1.20 | 0.40 | -1.85 | -2.49 | -2.99 |
| NRP1 | neuropilin 1 | -0.27 | -1.22 | -1.73 | -1.80 | -2.09 |
| EMX2 | empty spiracles homeobox 2 | 0.60 | -1.32 | -3.58 | -3.90 | -4.43 |
| RPS6KB1 | ribosomal protein S6 kinase, 70kDa, polypeptide 1 | 0.80 | 0.99 | 0.62 | 0.98 | 2.10 |
| ACVRL1 | activin A receptor type II-like 1 | 0.46 | -0.32 | -2.30 | -2.07 | -2.37 |
| PODXL | podocalyxin-like | -3.13 | -0.31 | -3.38 | -3.34 | -4.39 |
| ENG | endoglin | -0.26 | -0.49 | -1.79 | -2.12 | -2.73 |
| VEGFC | vascular endothelial growth factor C | -2.66 | -0.07 | -1.99 | -2.10 | -2.52 |
| ARID5B | AT rich interactive domain 5B (MRF1-like) | 0.61 | 0.48 | 0.33 | -1.71 | -2.73 |
| CCL5 | chemokine (C-C motif) ligand 5 | -3.11 | -1.03 | -3.84 | -3.49 | -4.79 |
| CXCL3 ^a | chemokine (C-X-C motif) ligand 3 | -1.86 | 0.81 | -2.63 | -1.74 | -3.06 |

^aGenes with more than one probe on the array.

SUPPLEMENTARY TABLE S2. LIST OF GENES INVOLVED INTO PROTEINACEOUS EXTRACELLULAR MATRIX

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|---------------------|---|---|---|--|--|---|
| MMP12 ^a | matrix metallopeptidase 12 (macrophage elastase) | -4.11 | -4.05 | -5.77 | -5.75 | -5.99 |
| MMP12 ^a | matrix metallopeptidase 12 (macrophage elastase) | -4.03 | -3.90 | -5.33 | -5.35 | -5.89 |
| SMOC2 | SPARC related modular calcium binding 2 | -0.19 | -4.56 | -5.45 | -5.34 | -5.85 |
| SPON1 | spondin 1, extracellular matrix protein | -2.16 | -4.60 | -4.52 | -4.50 | -5.28 |
| MFAP4 | microfibrillar-associated protein 4 | -0.76 | -3.65 | -4.75 | -4.81 | -5.37 |
| DPT | dermatopontin | 0.33 | -2.72 | -5.50 | -5.41 | -5.78 |
| FMOD | fibromodulin | -0.09 | -3.16 | -5.06 | -5.03 | -5.55 |
| SPON2 | spondin 2, extracellular matrix protein | 0.07 | -4.66 | -4.26 | -4.44 | -4.85 |
| FBLN1 ^a | fibulin 1 | -0.52 | -1.84 | -4.65 | -5.26 | -5.74 |
| TFPI2 | tissue factor pathway inhibitor 2 | -3.05 | -1.27 | -4.52 | -3.53 | -5.57 |
| MMP1 | matrix metallopeptidase 1 (interstitial collagenase) | -1.18 | -3.76 | -4.37 | -4.08 | -4.37 |
| POSTN | periostin, osteoblast specific factor | -0.26 | -2.23 | -5.89 | -5.84 | -2.80 |
| CTHRC1 | collagen triple helix repeat containing 1 | -0.81 | -3.67 | -3.85 | -3.79 | -4.10 |
| EMILIN2 | elastin microfibril interfacier 2 | 0.11 | -2.79 | -4.17 | -4.17 | -4.69 |
| FBLN2 | fibulin 2 | 0.14 | -2.13 | -3.49 | -4.10 | -4.58 |
| EGFL6 | EGF-like-domain, multiple 6 | -0.17 | -2.85 | -3.52 | -3.36 | -4.02 |
| FBLN1 ^a | fibulin 1 | -0.45 | -1.56 | -3.50 | -3.88 | -4.35 |
| MMP3 | matrix metallopeptidase 3 (stromelysin 1, progelatinase) | -1.24 | -2.85 | -3.51 | -2.94 | -2.85 |
| MMP10 | matrix metallopeptidase 10 (stromelysin 2) | -2.19 | -1.77 | -2.95 | -2.77 | -3.46 |
| PRELP | proline/arginine-rich end leucine- rich repeat protein | -0.89 | -1.25 | -3.19 | -3.27 | -4.41 |
| CTGF | connective tissue growth factor | -0.91 | -1.26 | -2.58 | -3.71 | -4.22 |
| SFRP1 | secreted frizzled-related protein 1 | 0.12 | -2.53 | -1.69 | -3.69 | -4.80 |
| SFRP1 | secreted frizzled-related protein 1 | 0.14 | -2.65 | -1.65 | -3.79 | -4.63 |
| DCN | decorin | -0.25 | -0.82 | -2.31 | -4.38 | -4.79 |
| TIMP3 | TIMP metallopeptidase inhibitor 3 | -1.02 | 0.96 | -2.87 | -4.36 | -5.08 |
| COMP | cartilage oligomeric matrix protein | 0.31 | -2.96 | -3.03 | -2.91 | -3.64 |
| ELN ^a | elastin | 0.26 | -0.96 | -3.37 | -3.67 | -4.25 |
| COL18A1 | collagen, type XVIII, alpha 1 | 0.67 | -2.26 | -3.08 | -3.29 | -3.96 |
| LTBP2 ^a | latent transforming growth factor beta binding protein 2 | 0.43 | -1.58 | -3.10 | -3.49 | -4.01 |
| ELN ^a | elastin | -0.53 | -1.40 | -2.95 | -3.07 | -3.75 |
| TNFRSF11B | tumor necrosis factor receptor superfamily, member 11b | 0.49 | -0.83 | -2.38 | -4.26 | -4.51 |
| LUM | lumican | 0.11 | 0.26 | -2.41 | -4.45 | -4.59 |
| FBLN5 | fibulin 5 | 0.36 | -1.27 | -2.81 | -3.21 | -4.07 |
| NTN1 | netrin 1 | 0.09 | -2.34 | -2.75 | -2.86 | -3.10 |
| MMP2 | matrix metallopeptidase 2 (gelatinase A, 72 kDa gelatinase, 72 kDa type IV collagenase) | 0.27 | -2.20 | -2.96 | -2.15 | -3.81 |
| FBLN5 | fibulin 5 | 0.30 | -1.23 | -2.64 | -3.04 | -4.04 |
| COL6A2 | collagen, type VI, alpha 2 | -0.52 | -0.27 | -3.08 | -2.67 | -4.08 |
| TNFRSF11B | tumor necrosis factor receptor superfamily, member 11b | 0.46 | -0.85 | -2.16 | -3.68 | -4.13 |
| TFPI2 | tissue factor pathway inhibitor 2 | -2.34 | -0.35 | -2.43 | -2.24 | -2.93 |
| COMP | cartilage oligomeric matrix protein | 0.26 | -2.32 | -2.46 | -2.47 | -3.20 |
| DPT | dermatopontin | -0.04 | -1.70 | -2.49 | -2.63 | -3.27 |
| COL8A2 | collagen, type VIII, alpha 2 | -0.68 | -0.10 | -2.80 | -2.79 | -3.16 |
| COL6A2 | collagen, type VI, alpha 2 | -1.16 | -0.66 | -2.19 | -2.92 | -2.56 |
| COL3A1 ^a | collagen, type III, alpha 1 | 1.10 | -1.05 | -2.12 | -3.69 | -3.68 |
| COL13A1 | collagen, type XIII, alpha 1 | -0.57 | -1.26 | -1.62 | -2.26 | -3.46 |

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|---------------------|---|---|---|--|--|---|
| VIT | vitron | 0.71 | -1.04 | -1.52 | -3.30 | -3.89 |
| ECM2 | extracellular matrix protein 2, female organ and adipocyte specific | -0.27 | -1.33 | -2.62 | -2.32 | -2.39 |
| LTBP2 ^a | latent transforming growth factor beta binding protein 2 | 0.63 | -0.93 | -2.79 | -2.65 | -3.04 |
| MMP27 | matrix metalloproteinase 27 | -0.20 | -1.89 | -2.01 | -1.99 | -2.53 |
| THBS4 | thrombospondin 4 | 0.09 | -1.91 | -2.12 | -1.98 | -2.32 |
| CILP | cartilage intermediate layer protein, nucleotide pyrophosphohydrolase | -1.38 | -1.28 | -1.62 | -1.50 | -2.26 |
| COL13A1 | collagen, type XIII, alpha 1 | -0.44 | -1.12 | -1.25 | -2.06 | -3.01 |
| LTBP2 ^a | latent transforming growth factor beta binding protein 2 | 0.54 | -1.06 | -1.89 | -2.25 | -3.13 |
| LAMA4 | laminin, alpha 4 | 1.22 | 0.19 | -2.69 | -2.49 | -3.93 |
| EFEMP2 | EGF-containing fibulin-like extracellular matrix protein 2 | 0.22 | -0.47 | -1.97 | -2.44 | -3.00 |
| COL1A2 | collagen, type I, alpha 2 | -0.26 | -1.48 | -1.91 | -2.20 | -1.69 |
| TGFBI | transforming growth factor, beta- induced, 68 kDa | 0.45 | 0.60 | -2.82 | -3.06 | -2.65 |
| MFAP2 | microfibrillar-associated protein 2 | 1.13 | -0.10 | -2.23 | -2.67 | -3.61 |
| TIMP2 | TIMP metalloproteinase inhibitor 2 | 0.04 | -0.91 | -1.52 | -2.05 | -3.00 |
| MMP19 | matrix metalloproteinase 19 | -0.55 | 0.27 | -2.42 | -2.22 | -2.44 |
| WNT5B | wingless-type MMTV integration site family, member 5B | -1.70 | -1.14 | -1.24 | -1.28 | -1.96 |
| LTBP2 ^a | latent transforming growth factor beta binding protein 2 | 0.57 | -0.81 | -2.20 | -2.18 | -2.58 |
| TNC | tenascin C | -0.05 | -0.17 | -2.14 | -2.17 | -2.60 |
| WNT2 | wingless-type MMTV integration site family member 2 | -0.59 | 0.06 | -1.43 | -2.31 | -2.75 |
| TIMP1 | TIMP metalloproteinase inhibitor 1 | -0.05 | -0.61 | -2.05 | -2.03 | -2.26 |
| NPNT | nephronectin | -0.47 | -1.55 | -1.45 | -1.45 | -2.08 |
| FN1 | fibronectin 1 | -0.51 | -1.60 | -2.03 | -1.29 | -1.54 |
| NID1 | nidogen 1 | -0.12 | -0.80 | -0.95 | -1.83 | -2.99 |
| ANGPTL4 | angiopoietin-like 4 | -1.40 | -0.76 | -1.50 | -1.04 | -1.93 |
| HMCN1 | hemicentin 1 | 0.55 | -0.96 | -2.01 | -1.90 | -2.12 |
| ADAMTS4 | ADAM metalloproteinase with thrombospondin type 1 motif, 4 | -0.60 | -1.07 | -1.69 | -1.21 | -1.81 |
| LGALS3 | lectin, galactoside-binding, soluble, 3 | 0.04 | 0.51 | -1.73 | -2.20 | -2.78 |
| COL3A1 ^a | collagen, type III, alpha 1 | 1.73 | -0.61 | -1.45 | -3.17 | -2.53 |
| COL5A1 | collagen, type V, alpha 1 | 1.19 | 0.37 | -1.88 | -2.52 | -3.19 |
| COL6A1 | collagen, type VI, alpha 1 | -0.34 | -0.10 | -2.12 | -1.92 | -1.49 |
| GPC1 | glypican 1 | 0.07 | -0.82 | -1.15 | -1.40 | -2.60 |
| COL5A1 | collagen, type V, alpha 1 | 1.20 | 0.40 | -1.85 | -2.49 | -2.99 |
| VCAN | versican | -0.75 | -0.31 | -0.70 | -2.37 | -1.53 |
| ECM1 | extracellular matrix protein 1 | -0.14 | 0.39 | -1.40 | -1.60 | -2.86 |
| LTBP4 | latent transforming growth factor beta binding protein 4 | -0.63 | -0.57 | -1.25 | -1.50 | -1.63 |
| COL18A1 | collagen, type XVIII, alpha 1 | 0.11 | -1.17 | -1.16 | -1.21 | -2.09 |
| FN1 | fibronectin 1 | 0.21 | -0.86 | -2.04 | -1.40 | -1.34 |
| CPZ | carboxypeptidase Z | 0.59 | -0.07 | -1.32 | -1.88 | -2.68 |
| ADAMTS14 | ADAM metalloproteinase with thrombospondin type 1 motif, 14 | 0.29 | -0.59 | -1.23 | -1.78 | -1.94 |
| ACHE | acetylcholinesterase (Yt blood group) | -0.31 | -1.22 | -1.30 | -1.39 | -0.89 |
| COL1A1 | collagen, type I, alpha 1 | 1.13 | -0.88 | -0.66 | -1.95 | -2.75 |
| SPARC | secreted protein, acidic, cysteine-rich (osteonectin) | 0.47 | -0.27 | -0.81 | -2.23 | -2.21 |
| COL5A2 | collagen, type V, alpha 2 | 0.77 | -0.88 | -0.46 | -1.99 | -2.31 |
| CST3 | cystatin C | -0.10 | -0.28 | -0.89 | -1.42 | -2.17 |

(continued)

SUPPLEMENTARY TABLE S2. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|--------------------|--|---|---|--|--|---|
| ADAMTS2 | ADAM metalloproteinase with thrombospondin type 1 motif, 2 | -0.04 | -0.50 | -0.95 | -1.45 | -1.82 |
| COL1A2 | collagen, type I, alpha 2 | 1.00 | -0.81 | -1.33 | -2.08 | -1.40 |
| COL6A3 | collagen, type VI, alpha 3 | 0.36 | -0.07 | -1.48 | -1.35 | -1.91 |
| CCDC80 | coiled-coil domain containing 80 | 0.41 | 0.04 | -1.09 | -2.05 | -1.72 |
| ADAMTS2 | ADAM metalloproteinase with thrombospondin type 1 motif, 2 | -0.25 | -0.73 | -0.78 | -0.96 | -1.66 |
| LAMB2 | laminin, beta 2 (laminin S) | 0.13 | -0.25 | -0.82 | -1.46 | -1.89 |
| ZP3 | zona pellucida glycoprotein 3 (sperm receptor) | -0.41 | 0.03 | -0.88 | -0.97 | -2.03 |
| RELL2 | RELT-like 2 | -0.39 | -0.71 | -0.74 | -0.63 | -1.69 |
| LOX | lysyl oxidase | 0.40 | 0.51 | -0.71 | -2.54 | -1.74 |
| MMP19 | matrix metalloproteinase 19 | -0.32 | -0.08 | -0.98 | -1.10 | -1.59 |
| EMILIN1 | elastin microfibril interfacier 1 | 0.23 | -0.85 | -1.12 | -1.10 | -1.11 |
| PODN | podocan | -0.32 | -0.04 | -0.87 | -1.09 | -1.54 |
| TNXB | tenascin XB | 0.98 | 1.42 | -1.67 | -1.93 | -2.63 |
| PXDN | peroxidase homolog (<i>Drosophila</i>) | 0.22 | -0.29 | -0.37 | -1.57 | -1.80 |
| MMP11 | matrix metalloproteinase 11 (stromelysin 3) | 0.47 | -0.92 | -0.95 | -1.06 | -1.35 |
| PXDN | peroxidase homolog (<i>Drosophila</i>) | 0.29 | -0.26 | -0.30 | -1.71 | -1.80 |
| MMP7 | matrix metalloproteinase 7 (matrilysin, uterine) | -0.40 | -0.71 | -0.74 | -0.64 | -1.27 |
| TNXB | tenascin XB | -0.18 | -0.59 | -0.83 | -0.98 | -1.12 |
| LAMC2 | laminin, gamma 2 | -0.81 | 0.15 | -0.87 | -0.83 | -1.33 |
| RELL2 | RELT-like 2 | -0.36 | -0.64 | -0.64 | -0.52 | -1.52 |
| FBLN1 ^a | fibulin 1 | -0.27 | -0.51 | -0.76 | -0.76 | -1.32 |
| LGALS3BP | lectin, galactoside-binding, soluble, 3 binding protein | -0.49 | -0.49 | -1.16 | -0.36 | -1.10 |
| CCDC80 | coiled-coil domain containing 80 | 0.50 | 0.37 | -0.87 | -1.88 | -1.64 |
| COL7A1 | collagen, type VII, alpha 1 | -1.33 | 0.47 | -1.54 | -0.14 | -0.97 |
| COL6A1 | collagen, type VI, alpha 1 | -0.59 | -0.27 | -1.11 | -1.01 | -0.49 |
| NTN1 | netrin 1 | -0.54 | -0.61 | -0.57 | -0.59 | -1.01 |
| FBN1 | fibrillin 1 | 0.61 | 0.97 | -0.98 | -1.95 | -1.86 |
| COL27A1 | collagen, type XXVII, alpha 1 | 0.55 | -0.49 | -1.05 | -1.19 | -1.03 |
| TNR | tenascin R (restrictin, janusin) | -0.25 | -0.30 | -0.66 | -1.12 | -0.82 |
| CD248 | CD248 molecule, endosialin | 0.99 | 0.28 | -1.12 | -1.42 | -1.81 |
| PODNL1 | podocan-like 1 | 0.49 | -0.41 | -1.26 | -0.84 | -1.00 |
| WNT11 | wingless-type MMTV integration site family, member 11 | -0.43 | -0.37 | -0.53 | -0.67 | -0.97 |
| TGFB1 | transforming growth factor, beta 1 | -0.33 | -0.55 | -0.37 | -0.52 | -1.14 |
| MMP9 | matrix metalloproteinase 9 (gelatinase B, 92 kDa gelatinase, 92 kDa type IV collagenase) | -0.28 | -0.48 | -0.54 | -0.62 | -1.00 |
| ELN ^a | elastin | 0.12 | -0.40 | -0.74 | -0.74 | -1.11 |
| LAMC1 | laminin, gamma 1 (formerly LAMB2) | 1.41 | 0.67 | -0.84 | -1.84 | -2.07 |
| LOX | lysyl oxidase | 0.99 | 1.62 | -0.88 | -2.55 | -1.81 |
| COL12A1 | collagen, type XII, alpha 1 | 1.55 | 0.80 | -0.62 | -2.47 | -1.88 |
| COL16A1 | collagen, type XVI, alpha 1 | 0.58 | 0.13 | -1.10 | -0.91 | -1.08 |
| ADAMTSL4 | ADAMTS-like 4 | 0.30 | 0.13 | -0.90 | -0.67 | -1.14 |
| ADAMTS13 | ADAM metalloproteinase with thrombospondin type 1 motif, 13 | 0.04 | -0.08 | -0.53 | -0.64 | -1.04 |
| FBLN7 | fibulin 7 | 0.13 | -0.26 | -0.32 | -0.38 | -1.34 |
| COL6A6 | collagen, type VI, alpha 6 | 0.91 | -0.49 | -0.70 | -0.78 | -1.06 |
| LAMA2 | laminin, alpha 2 | 1.12 | -0.52 | 0.06 | -1.41 | -1.27 |
| PODNL1 | podocan-like 1 | 0.28 | -0.05 | -0.61 | -0.48 | -1.06 |
| FLRT2 | fibronectin leucine rich transmembrane protein 2 | -0.57 | 0.28 | 0.61 | -1.09 | -0.82 |
| ADAMTS5 | ADAM metalloproteinase with thrombospondin type 1 motif, 5 | 0.98 | 1.33 | -0.37 | -1.70 | -1.79 |

(continued)

SUPPLEMENTARY TABLE S2. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|--------------------|---|---|---|--|--|---|
| DAG1 | dystroglycan 1 (dystrophin-associated glycoprotein 1) | 0.36 | -0.09 | 0.01 | -0.33 | -1.17 |
| ZP3 | zona pellucida glycoprotein 3 (sperm receptor) | 0.21 | 0.21 | 0.11 | -0.53 | -1.05 |
| ADAMTSL5 | ADAMTS-like 5 | -0.06 | 0.48 | 0.30 | -0.29 | -1.37 |
| EFEMP1 | EGF-containing fibulin-like extracellular matrix protein 1 | 2.32 | 1.75 | 0.49 | -2.85 | -2.37 |
| PAPLN | papilin, proteoglycan-ike sulfated glycoprotein | 0.00 | -0.18 | 0.01 | -0.15 | -0.31 |
| WNT5A | wingless-type MMTV integration site family, member 5A | 1.10 | 1.90 | -1.15 | -2.05 | -0.41 |
| COL5A2 | collagen, type V, alpha 2 | 1.52 | 0.09 | 0.26 | -1.48 | -0.85 |
| LAMC2 | laminin, gamma 2 | -0.19 | 1.00 | -0.25 | -0.19 | -0.82 |
| MATN2 | matrilin 2 | -0.37 | 1.42 | 1.71 | -0.98 | -1.86 |
| SPOCK1 | sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 1 | 0.78 | 1.20 | -0.63 | -1.01 | -0.39 |
| LAMB1 | laminin, beta 1 | 1.89 | 1.14 | -1.38 | -0.64 | -0.99 |
| ADAMTS12 | ADAM metalloproteinase with thrombospondin type 1 motif, 12 | -1.33 | -0.60 | 0.93 | 0.86 | 0.22 |
| LTBP1 | latent transforming growth factor beta binding protein 1 | -0.36 | 1.22 | -0.58 | 0.05 | -0.16 |
| FGF9 | fibroblast growth factor 9 (glia-activating factor) | 0.82 | 0.24 | 0.98 | -0.74 | -1.04 |
| ADAMTSL5 | ADAMTS-like 5 | 0.23 | 0.98 | 0.54 | -0.15 | -1.31 |
| ADAMTS1 | ADAM metalloproteinase with thrombospondin type 1 motif, 1 | -0.73 | 1.90 | 0.99 | -0.90 | -0.79 |
| SNCA | synuclein, alpha (non A4 component of amyloid precursor) | 1.42 | -0.44 | -0.46 | -0.19 | 0.20 |
| MMP16 | matrix metalloproteinase 16 (membrane-inserted) | -0.21 | -0.82 | -0.92 | 0.97 | 1.58 |
| ADAMTS1 | ADAM metalloproteinase with thrombospondin type 1 motif, 1 | -0.71 | 1.83 | 1.01 | -0.89 | -0.62 |
| LAMA3 | laminin, alpha 3 | 0.27 | 1.69 | 0.83 | -0.73 | -1.25 |
| ANG | angiogenin, ribonuclease, RNase A family, 5 | 1.34 | 0.35 | -0.05 | -0.43 | -0.40 |
| COL17A1 | collagen, type XVII, alpha 1 | -0.40 | -0.02 | -0.23 | 1.49 | 0.25 |
| ADAMTS6 | ADAM metalloproteinase with thrombospondin type 1 motif, 6 | -0.34 | 1.81 | -0.03 | 0.13 | -0.31 |
| VEGFA ^a | vascular endothelial growth factor A | -0.20 | -0.10 | -0.09 | -0.05 | 1.80 |
| VEGFA ^a | vascular endothelial growth factor A | -1.06 | 0.91 | -0.68 | 0.23 | 2.05 |
| HAPLN1 | hyaluronan and proteoglycan link protein 1 | -0.07 | -0.17 | 0.50 | 1.15 | 0.11 |
| LAMA3 | laminin, alpha 3 | 0.39 | 1.08 | 0.22 | -0.16 | 0.02 |
| COL12A1 | collagen, type XII, alpha 1 | 1.58 | 1.55 | 1.01 | -1.69 | -0.81 |
| LAMA1 ^a | laminin, alpha 1 | 0.10 | 0.03 | 0.06 | 0.02 | 1.64 |
| VEGFA ^a | vascular endothelial growth factor A | -0.64 | 0.96 | -0.37 | 0.08 | 1.90 |
| COL17A1 | collagen, type XVII, alpha 1 | -0.38 | 0.18 | -0.36 | 1.67 | 0.96 |
| COL4A1 | collagen, type IV, alpha 1 | -0.44 | 1.69 | 0.82 | 0.14 | 0.00 |
| CRTAP | cartilage associated protein | 0.14 | -0.29 | 0.68 | 1.02 | 0.94 |
| FGF1 ^a | fibroblast growth factor 1 (acidic) | -0.22 | 1.16 | 0.90 | 0.57 | 0.13 |
| COL8A1 | collagen, type VIII, alpha 1 | 0.93 | 0.03 | 1.26 | 0.29 | 0.15 |
| SLC1A3 | solute carrier family 1 (glial high-affinity glutamate transporter), member 3 | 0.72 | 0.10 | -0.45 | 0.70 | 1.77 |
| FBN2 | fibrillin 2 | 3.62 | 0.28 | -0.19 | -0.18 | -0.67 |
| FLRT3 | fibronectin leucine rich transmembrane protein 3 | 0.37 | 1.55 | 1.92 | -0.64 | -0.33 |
| FLRT2 | fibronectin leucine rich transmembrane protein 2 | 0.46 | 1.32 | 1.50 | 0.00 | -0.38 |

(continued)

SUPPLEMENTARY TABLE S2. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|-----------------------|--|---|---|--|--|---|
| ADAMTSL1 ^a | ADAMTS-like 1 | -0.01 | 0.32 | 1.65 | 0.58 | 0.36 |
| ERBB2IP | erbb2 interacting protein | 0.31 | 1.36 | 0.82 | 0.14 | 0.27 |
| MAMDC2 | MAM domain containing 2 | 0.90 | 2.15 | 0.78 | 0.22 | -1.13 |
| FGF1 ^a | fibroblast growth factor 1 (acidic) | -0.43 | 1.34 | 1.19 | 0.79 | 0.13 |
| SMC3 | structural maintenance of chromosomes 3 | 0.09 | 0.66 | 0.59 | 0.74 | 1.13 |
| COL3A1 ^a | collagen, type III, alpha 1 | 2.03 | 0.23 | -0.31 | -0.37 | 1.67 |
| FGF1 ^a | fibroblast growth factor 1 (acidic) | 0.04 | 1.91 | 0.62 | 0.41 | 0.46 |
| ADAMTSL1 ^a | ADAMTS-like 1 | -0.07 | 0.51 | 1.71 | 0.69 | 0.60 |
| GPC6 | glypican 6 | 0.49 | 0.62 | 0.29 | 0.66 | 1.74 |
| VEGFA ^a | vascular endothelial growth factor A | -0.81 | 1.64 | 0.38 | 1.64 | 0.96 |
| DST | dystonin | 0.57 | 1.86 | 0.85 | 0.02 | 0.73 |
| SLC1A3 | solute carrier family 1 (glial high- affinity glutamate transporter), member 3 | 1.54 | -0.08 | -1.94 | 1.83 | 2.69 |
| LAMA1 ^a | laminin, alpha 1 | 0.74 | 0.47 | 0.55 | 0.83 | 1.57 |
| COL4A2 | collagen, type IV, alpha 2 | -0.27 | 2.02 | 1.05 | 0.66 | 0.85 |
| THSD4 | thrombospondin, type I, domain containing 4 | 0.36 | 1.31 | 1.01 | 0.90 | 1.41 |
| LAMA1 ^a | laminin, alpha 1 | 0.54 | 0.24 | 0.67 | 1.80 | 1.91 |
| MFAP5 | microfibrillar associated protein 5 | 0.40 | 3.41 | 1.80 | 0.30 | -0.54 |
| RELN | reelin | 2.35 | 2.10 | -0.03 | 0.98 | 0.14 |
| COL8A1 | collagen, type VIII, alpha 1 | 1.72 | 0.02 | 2.29 | 0.85 | 0.66 |
| NID2 | nidogen 2 (osteonidogen) | 0.38 | 3.15 | 2.46 | -0.25 | 0.00 |
| LAMB3 | laminin, beta 3 | -0.38 | 0.64 | -0.82 | 3.00 | 3.77 |
| BMP4 | bone morphogenetic protein 4 | 0.56 | 2.24 | 2.73 | 0.61 | 0.71 |
| ADAMTSL1 ^a | ADAMTS-like 1 | 0.23 | 1.96 | 2.65 | 1.98 | 2.29 |
| COL4A5 | collagen, type IV, alpha 5 | 0.99 | 2.58 | 2.99 | 1.77 | 2.05 |
| COL11A1 | collagen, type XI, alpha 1 | 1.97 | 2.58 | 2.87 | 3.12 | 2.09 |
| NTN4 | netrin 4 | 2.81 | 4.66 | 4.09 | 1.67 | 1.33 |

^aGenes with more than one probe on the array.

SUPPLEMENTARY TABLE S3. ECM REMODELING GENES

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|----------------------|---|---|---|--|--|---|
| ADAM33 ^a | ADAM metallopeptidase domain 33 | 0.68 | 0.05 | -0.30 | -1.06 | -1.66 |
| ADAM33 ^a | ADAM metallopeptidase domain 33 | 0.85 | 0.19 | -0.05 | -0.73 | -1.63 |
| ADAMTS12 | ADAM metallopeptidase with thrombospondin type 1 motif, 12 | -1.33 | -0.60 | 0.93 | 0.86 | 0.22 |
| ADAMTS13 | ADAM metallopeptidase with thrombospondin type 1 motif, 13 | 0.04 | -0.08 | -0.53 | -0.64 | -1.04 |
| ADAMTS14 | ADAM metallopeptidase with thrombospondin type 1 motif, 14 | 0.29 | -0.59 | -1.23 | -1.78 | -1.94 |
| ADAMTS2 ^a | ADAM metallopeptidase with thrombospondin type 1 motif, 2 | -0.04 | -0.50 | -0.95 | -1.45 | -1.82 |
| ADAMTS2 ^a | ADAM metallopeptidase with thrombospondin type 1 motif, 2 | -0.25 | -0.73 | -0.78 | -0.96 | -1.66 |
| ADAMTS4 | ADAM metallopeptidase with thrombospondin type 1 motif, 4 | -0.60 | -1.07 | -1.69 | -1.21 | -1.81 |
| ADAMTS5 | ADAM metallopeptidase with thrombospondin type 1 motif, 5 | 0.98 | 1.33 | -0.37 | -1.70 | -1.79 |
| AGT | angiotensinogen (serpin peptidase inhibitor, clade A, member 8) | -0.17 | -0.68 | -1.09 | -0.96 | -1.62 |
| CPZ | carboxypeptidase Z | 0.59 | -0.07 | -1.32 | -1.88 | -2.68 |
| DPP4 | dipeptidyl-peptidase 4 | 0.10 | -4.18 | -4.78 | -4.90 | -5.65 |
| FAP | fibroblast activation protein, alpha | 0.43 | -1.83 | -2.67 | -2.30 | -1.42 |
| LTBP4 | latent transforming growth factor beta binding protein 4 | -0.63 | -0.57 | -1.25 | -1.50 | -1.63 |
| MMP1 | matrix metallopeptidase 1 (interstitial collagenase) | -1.18 | -3.76 | -4.37 | -4.08 | -4.37 |
| MMP10 | matrix metallopeptidase 10 (stromelysin 2) | -2.19 | -1.77 | -2.95 | -2.77 | -3.46 |
| MMP11 | matrix metallopeptidase 11 (stromelysin 3) | 0.47 | -0.92 | -0.95 | -1.06 | -1.35 |
| MMP12 ^a | matrix metallopeptidase 12 (macrophage elastase) | -4.11 | -4.05 | -5.77 | -5.75 | -5.99 |
| MMP12 ^a | matrix metallopeptidase 12 (macrophage elastase) | -4.03 | -3.90 | -5.33 | -5.35 | -5.89 |
| MMP14 | matrix metallopeptidase 14 (membrane-inserted) | 0.46 | -0.74 | -2.35 | -2.73 | -1.54 |
| MMP19 ^a | matrix metallopeptidase 19 | -0.55 | 0.27 | -2.42 | -2.22 | -2.44 |
| MMP19 ^a | matrix metallopeptidase 19 | -0.32 | -0.08 | -0.98 | -1.10 | -1.59 |
| MMP2 | matrix metallopeptidase 2 (gelatinase A, 72 kDa gelatinase, 72 kDa type IV collagenase) | 0.27 | -2.20 | -2.96 | -2.15 | -3.81 |
| MMP27 | matrix metallopeptidase 27 | -0.20 | -1.89 | -2.01 | -1.99 | -2.53 |
| MMP3 | matrix metallopeptidase 3 (stromelysin 1, progelatinase) | -1.24 | -2.85 | -3.51 | -2.94 | -2.85 |
| MMP7 | matrix metallopeptidase 7 (matrilysin, uterine) | -0.40 | -0.71 | -0.74 | -0.64 | -1.27 |
| PLAT | plasminogen activator, tissue | -2.78 | -0.33 | -3.67 | -3.98 | -3.77 |
| PLAU | plasminogen activator, urokinase | -0.18 | 1.00 | -1.28 | -0.63 | -0.19 |
| PLAUR | plasminogen activator, urokinase receptor | -1.37 | -0.35 | -0.88 | -0.86 | -1.08 |

(continued)

SUPPLEMENTARY TABLE S3. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|-----------------------|---|---|---|--|--|---|
| SERPINA3 | serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 3 | -0.28 | -0.28 | -0.49 | -0.45 | -1.04 |
| SERPINE1 ^a | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1 | -2.21 | 0.15 | -2.12 | -1.82 | -2.86 |
| SERPINE1 ^a | serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type 1), member 1 | -1.57 | -0.09 | -1.25 | -0.79 | -1.41 |
| THBS1 ^a | thrombospondin 1 | 1.21 | -0.09 | -3.01 | -3.26 | -3.08 |
| THBS1 ^a | thrombospondin 1 | 0.79 | 0.14 | -2.31 | -2.74 | -2.85 |
| TIMP1 | TIMP metalloproteinase inhibitor 1 | -0.05 | -0.61 | -2.05 | -2.03 | -2.26 |
| TIMP3 | TIMP metalloproteinase inhibitor 3 | -1.02 | 0.96 | -2.87 | -4.36 | -5.08 |
| MMP16 | matrix metalloproteinase 16 (membrane-inserted) | -0.21 | -0.82 | -0.92 | 0.97 | 1.58 |
| ADAM15 | ADAM metalloproteinase domain 15 | 0.60 | 0.85 | 0.02 | -0.50 | 1.72 |
| ADAM9 | ADAM metalloproteinase domain 9 (meltrin gamma) | 0.14 | 0.34 | 0.60 | 0.64 | 1.53 |

^aGenes with more than one probe on the array.

SUPPLEMENTARY TABLE S4. LIST OF GENES ASSOCIATED TO POSITIVE REGULATION OF CELL DIFFERENTIATION

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|---------------------|---|---|---|--|--|---|
| GATA6 | GATA binding protein 6 | 0.12 | 2.84 | 0.14 | -0.01 | 0.03 |
| NEFL ^a | neurofilament, light polypeptide | 0.43 | 5.15 | 0.38 | 0.98 | 0.31 |
| ROBO2 | roundabout, axon guidance receptor, homolog 2 (<i>Drosophila</i>) | 1.89 | 2.21 | 0.15 | -1.68 | -1.80 |
| JAG1 | jagged 1 (Alagille syndrome) | 1.06 | 2.10 | 0.40 | -0.65 | -0.90 |
| NEFL ^a | neurofilament, light polypeptide | -0.06 | 2.85 | 0.05 | 0.23 | -0.23 |
| TGFBR2 | transforming growth factor, beta receptor II (70/80 kDa) | -0.93 | -0.08 | -2.39 | -0.57 | -0.69 |
| BDNF ^a | brain-derived neurotrophic factor | -0.07 | 1.48 | 2.82 | 0.29 | -0.29 |
| BDNF ^a | brain-derived neurotrophic factor | 0.65 | 2.31 | 3.28 | 1.04 | 0.96 |
| TGFB2 | transforming growth factor, beta 2 | -1.24 | 1.78 | 2.11 | -0.75 | -0.02 |
| DNMT3B | DNA (cytosine-5-) -methyltransferase 3 beta | -0.19 | 0.22 | 2.53 | 1.72 | 1.61 |
| BMP4 | bone morphogenetic protein 4 | 0.56 | 2.24 | 2.73 | 0.61 | 0.71 |
| AGTR1 | angiotensin II receptor, type 1 | 1.52 | -0.73 | 2.33 | 1.82 | 1.11 |
| IL7 | interleukin 7 | -0.58 | -1.96 | -3.05 | -1.14 | -1.35 |
| SOCS5 | suppressor of cytokine signaling 5 | 0.35 | -0.57 | -1.33 | -2.01 | -1.33 |
| FOXP1 ^a | forkhead box G1 | -0.15 | -0.15 | 2.38 | 2.16 | 1.10 |
| FGF2 | fibroblast growth factor 2 (basic) | -0.78 | 0.39 | -2.78 | -2.41 | -2.00 |
| PPARG | peroxisome proliferator-activated receptor gamma | 0.84 | 0.59 | 1.60 | 2.76 | 2.43 |
| IL6R | interleukin 6 receptor | 0.49 | -0.22 | -1.01 | -1.11 | -2.29 |
| NRCAM | neuronal cell adhesion molecule | -0.12 | -0.95 | -1.27 | -1.20 | -2.10 |
| BOC | Boc homolog (mouse) | -0.54 | -1.08 | -3.08 | -2.98 | -3.43 |
| CLU | clusterin | -0.24 | 0.66 | -2.62 | -2.76 | -3.03 |
| CDKN2B | cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4) | -0.16 | 0.66 | -2.40 | -2.38 | -2.75 |
| FOXP1 ^a | forkhead box G1 | -0.49 | -0.42 | 4.10 | 3.54 | 2.72 |
| MAP1B | microtubule-associated protein 1B | 0.66 | 1.96 | 1.97 | 1.90 | 2.01 |
| ID2 ^a | inhibitor of DNA binding 2, dominant negative helix-loop- helix protein | 0.13 | -0.73 | -1.31 | -3.18 | -4.29 |
| NGF | nerve growth factor (beta polypeptide) | -0.84 | 0.73 | 0.06 | -0.82 | -2.25 |
| IGFBP3 ^a | insulin-like growth factor binding protein 3 | -1.20 | -0.94 | -2.56 | -4.01 | -3.93 |
| ARHGDI A | Rho GDP dissociation inhibitor (GDI) alpha | -0.53 | -0.51 | -0.32 | -0.14 | -2.06 |
| KITLG | KIT ligand | -1.18 | 0.32 | -0.87 | -1.53 | -2.19 |
| PLXNB2 ^a | plexin B2 | -0.43 | -0.42 | -1.47 | -1.78 | -2.39 |
| JUNB | jun B proto-oncogene | -0.47 | -0.41 | -0.85 | -1.38 | -2.29 |
| KIT | v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog | 1.37 | 1.01 | 2.25 | -1.14 | -2.71 |
| CD83 | CD83 molecule | -0.64 | 1.72 | 0.02 | -1.61 | -2.44 |
| SH3PXD2B | SH3 and PX domains 2B | -0.29 | -0.28 | -0.75 | -1.15 | -2.02 |
| SERPINF1 | serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 1 | -0.97 | -3.78 | -3.98 | -3.96 | -4.60 |
| LYN | v-yes-1 Yamaguchi sarcoma viral related oncogene homolog | -0.11 | -1.24 | -2.22 | -2.19 | -2.65 |
| SOCS3 | suppressor of cytokine signaling 3 | -0.78 | -0.55 | -1.42 | -1.44 | -2.74 |
| RUNX1 | runt-related transcription factor 1 | -0.35 | 0.20 | -1.29 | -1.22 | -2.28 |
| NTN1 | netrin 1 | 0.09 | -2.34 | -2.75 | -2.86 | -3.10 |

(continued)

SUPPLEMENTARY TABLE S4. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|---------------------|---|---|---|--|--|---|
| LIMK1 | LIM domain kinase 1 | -1.13 | -1.07 | -2.24 | -1.32 | -2.46 |
| FOXO3 ^a | forkhead box O3 | -1.31 | -0.44 | -2.15 | -2.16 | -3.09 |
| IGF2 | insulin-like growth factor 2 (somatomedin A) | -2.16 | -3.41 | -3.67 | -3.72 | -4.21 |
| IL6 | interleukin 6 (interferon, beta 2) | 0.13 | 3.73 | 0.02 | -0.83 | -2.59 |
| PLXNB2 ^a | plexin B2 | -0.43 | -0.47 | -1.50 | -1.78 | -2.47 |
| SCIN | scinderin | 1.93 | -1.99 | -2.57 | -2.38 | -3.09 |
| STAT5A | signal transducer and activator of transcription 5 ^o | 0.26 | -0.08 | -1.86 | -1.39 | -2.26 |
| IGFBP3 ^a | insulin-like growth factor binding protein 3 | -0.86 | -0.84 | -3.68 | -4.87 | -4.36 |
| IL4R | interleukin 4 receptor | -0.61 | -0.36 | -1.05 | -1.60 | -2.36 |
| FOXO3 ^a | forkhead box O3 | -1.35 | -0.43 | -2.05 | -2.01 | -3.08 |
| BMP6 | bone morphogenetic protein 6 | -1.73 | -0.65 | -1.65 | -1.77 | -2.19 |
| BMP2 | bone morphogenetic protein 2 | -1.33 | -2.77 | -3.01 | -2.70 | -3.41 |
| VEGFC | vascular endothelial growth factor C | -2.66 | -0.07 | -1.99 | -2.10 | -2.52 |
| SMAD1 | SMAD family member 1 | 1.27 | 1.58 | 0.85 | 0.79 | 2.38 |
| ADA | adenosine deaminase | -1.84 | -2.08 | -2.35 | -2.44 | -2.31 |
| CCL5 | chemokine (C-C motif) ligand 5 | -3.11 | -1.03 | -3.84 | -3.49 | -4.79 |
| ID2 ^a | inhibitor of DNA binding 2, dominant negative helix-loop- helix protein | -0.36 | -1.24 | -1.64 | -3.32 | -4.35 |

^aGenes with more than one probe on the array.

SUPPLEMENTARY TABLE S5. LIST OF THE TWO GENES AND FOUR miRS VALIDATED BY REAL-TIME RT-PCR

| <i>Gene</i> | <i>Cen3tel 37</i> | <i>Cen3tel 97</i> | <i>Cen3tel 167</i> | <i>Cen3tel 618</i> | <i>Cen3tel 1034</i> |
|-------------|-----------------------|-----------------------|------------------------|------------------------|-------------------------|
| BMP2 | -2.85 | -7.55 | -11.89 | -7.58 | -7.39 |
| BMP6 | -6.30 | -2.40 | -5.09 | -5.87 | -4.14 |
| miR-34a | n.d. | -0.50 | -7.38 | -6.04 | -4.87 |
| miR-145 | n.d. | 0.52 | -0.79 | -1.63 | -1.32 |
| let-7b | n.d. | -0.02 | -0.83 | -1.42 | -1.66 |
| miR-20a | n.d. | 0.33 | 1.49 | 3.10 | 3.12 |

The values are the log₂ of the ratio at different PDs, relative to parental cen3 fibroblasts.
n.d., not determined.

SUPPLEMENTARY TABLE S6. CELL CYCLE GENES

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|---------------------|---|---|---|--|--|---|
| IL12A ^a | interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) | -2.32 | -1.44 | -2.00 | -1.70 | -1.85 |
| HBEGF | heparin-binding EGF-like growth factor | -2.08 | 0.39 | 0.36 | -0.08 | -0.97 |
| SPHK1 | sphingosine kinase 1 | -2.21 | -0.46 | -1.47 | -0.76 | -1.22 |
| SSTR1 | somatostatin receptor 1 | -0.96 | 2.54 | 1.02 | 0.64 | 0.63 |
| KLF5 | Kruppel-like factor 5 (intestinal) | 1.43 | 3.54 | 0.34 | 0.91 | 0.02 |
| CXCL10 | chemokine (C-X-C motif) ligand 10 | -0.65 | 2.37 | -0.04 | 1.93 | -0.41 |
| SKA1 | spindle and kinetochore associated complex subunit 1 | -0.28 | 0.93 | 2.05 | 1.67 | 1.95 |
| BDNF ^a | brain-derived neurotrophic factor | -0.07 | 1.48 | 2.82 | 0.29 | -0.29 |
| BDNF ^a | brain-derived neurotrophic factor | 0.65 | 2.31 | 3.28 | 1.04 | 0.96 |
| NFIB ^a | nuclear factor I/B | 0.36 | 1.70 | 2.25 | 1.34 | 1.95 |
| TM4SF4 | transmembrane 4 L six family member 4 | -0.14 | 0.53 | 2.30 | -0.08 | -0.26 |
| SESN1 ^a | sestrin 1 | 0.00 | -0.03 | -2.02 | -1.78 | -1.86 |
| PBX1 ^a | pre-B-cell leukemia homeobox 1 | 0.82 | -1.33 | -2.64 | -1.17 | -0.33 |
| TGFBR2 | transforming growth factor, beta receptor II (70/80 kDa) | -0.93 | -0.08 | -2.39 | -0.57 | -0.69 |
| RAC2 | ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2) | -0.56 | -0.69 | -2.67 | -1.31 | 0.23 |
| BMP4 | bone morphogenetic protein 4 | 0.56 | 2.24 | 2.73 | 0.61 | 0.71 |
| ATF3 ^a | activating transcription factor 3 | -0.70 | 3.17 | 2.32 | 0.37 | -0.68 |
| ITGA2 ^a | integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor) | -2.99 | -2.76 | -3.14 | 0.00 | -0.49 |
| RTKN2 | rhotekin 2 | 0.12 | 1.22 | 2.00 | 1.33 | 1.23 |
| ATF3 ^a | activating transcription factor 3 | -1.16 | 3.65 | 2.62 | 0.63 | -1.12 |
| PBX1 ^a | pre-B-cell leukemia homeobox 1 | 0.97 | -1.46 | -3.38 | -1.59 | -0.65 |
| IL7 | interleukin 7 | -0.58 | -1.96 | -3.05 | -1.14 | -1.35 |
| ITGA2 ^a | integrin, alpha 2 (CD49B, alpha 2 subunit of VLA-2 receptor) | -2.97 | -2.77 | -3.01 | -0.16 | -0.28 |
| TGFB2 | transforming growth factor, beta 2 | -1.24 | 1.78 | 2.11 | -0.75 | -0.02 |
| MKI67 | antigen identified by monoclonal antibody Ki-67 | 0.86 | 1.62 | 2.26 | 2.63 | 1.92 |
| UBE2C | ubiquitin-conjugating enzyme E2C | -0.41 | 0.67 | 1.83 | 2.07 | 1.85 |
| ZMIZ1 | zinc finger, MIZ-type containing 1 | -1.07 | -1.65 | -2.37 | -2.37 | -1.40 |
| CCL3L3 | chemokine (C-C motif) ligand 3-like 3 | -0.24 | 0.49 | -0.21 | 2.18 | -0.09 |
| FGF2 | fibroblast growth factor 2 (basic) | -0.78 | 0.39 | -2.78 | -2.41 | -2.00 |
| CCND1 ^a | cyclin D1 | -1.36 | -0.65 | -2.06 | -2.59 | -1.86 |
| MDM2 | Mdm2 p53 binding protein homolog (mouse) | -0.90 | -0.03 | -2.30 | -2.26 | -1.69 |
| FOXG1 ^a | forkhead box G1 | -0.15 | -0.15 | 2.38 | 2.16 | 1.10 |
| ASNS | asparagine synthetase | 1.91 | 3.01 | 1.70 | 2.05 | 1.85 |
| CDCA3 ^a | cell division cycle associated 3 | 0.64 | 0.64 | 1.89 | 2.02 | 2.50 |
| CCNB1 | cyclin B1 | 0.75 | 0.44 | 1.90 | 1.97 | 2.93 |
| NCAPH | non-SMC condensin I complex, subunit H | -0.41 | 0.58 | 1.55 | 2.03 | 2.38 |
| CDCA2 ^a | cell division cycle associated 2 | -0.34 | 1.09 | 1.51 | 1.96 | 2.91 |
| FBXO5 | F-box protein 5 | -0.41 | 1.83 | 1.19 | 1.70 | 2.56 |
| BUB1B | budding uninhibited by benzimidazoles 1 homolog beta (yeast) | 0.50 | 1.25 | 1.51 | 2.20 | 3.09 |
| LRRCC1 ^a | leucine rich repeat and coiled-coil domain containing 1 | 0.91 | 2.04 | 2.06 | 2.18 | 2.44 |
| NUP37 | nucleoporin 37kDa | 0.28 | 0.87 | 0.92 | 1.49 | 2.28 |
| AURKB | aurora kinase B | -0.45 | 0.58 | 1.59 | 2.06 | 2.24 |

(continued)

SUPPLEMENTARY TABLE S6. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|---------------------|--|---|---|--|--|---|
| CHFR | checkpoint with forkhead and ring finger domains | -0.69 | -1.61 | -1.71 | -1.45 | -2.39 |
| STMN1 | stathmin 1 | 1.17 | 1.89 | 2.37 | 1.72 | 2.16 |
| C13orf34 | chromosome 13 open reading frame 34 | 0.38 | 0.71 | 0.68 | 1.35 | 2.43 |
| HAUS1 | HAUS augmin-like complex, subunit 1 | 0.35 | 0.79 | 1.77 | 1.31 | 2.03 |
| NEK2 ^a | NIMA (never in mitosis gene a)- related kinase 2 | 0.99 | 0.98 | 2.17 | 2.48 | 2.83 |
| CENPV | centromere protein V | -0.17 | 0.79 | 2.66 | 3.21 | 3.25 |
| KIF2C | kinesin family member 2C | 0.08 | 0.48 | 1.81 | 1.91 | 2.59 |
| NDC80 ^a | NDC80 homolog, kinetochore complex component (<i>S. cerevisiae</i>) | 0.48 | 1.20 | 2.46 | 1.94 | 3.28 |
| NCAPG | non-SMC condensin I complex, subunit G | -0.48 | 1.24 | 1.67 | 1.63 | 2.61 |
| CDCA2 ^a | cell division cycle-associated 2 | -0.17 | 0.48 | 0.83 | 0.98 | 2.01 |
| LFNG | LFNG O-fucosylpeptide 3-beta-N- acetylglucosaminyltransferase | -1.94 | -1.07 | -2.24 | -1.83 | -2.28 |
| NUF2 | NUF2, NDC80 kinetochore complex component, homolog (<i>S. cerevisiae</i>) | 0.47 | 1.43 | 2.28 | 2.47 | 3.16 |
| CDC2 | cell division cycle 2, G1 to S and G2 to M | 0.04 | 1.24 | 2.58 | 2.28 | 2.60 |
| CLASP2 | cytoplasmic linker associated protein 2 | 0.32 | 0.39 | 0.43 | 1.51 | 2.46 |
| LRRCC1 ^a | leucine rich repeat and coiled-coil domain containing 1 | 1.05 | 2.35 | 2.12 | 2.36 | 2.73 |
| KIF18A | kinesin family member 18 ^o | 0.43 | 1.12 | 2.70 | 2.55 | 3.74 |
| SPAG5 | sperm associated antigen 5 | 0.35 | 0.95 | 1.63 | 2.08 | 2.75 |
| BUB1 | budding uninhibited by benzimidazoles 1 homolog (yeast) | 1.07 | 1.56 | 2.14 | 2.66 | 3.46 |
| CKS2 | CDC28 protein kinase regulatory subunit 2 | 0.54 | 0.52 | 1.61 | 1.98 | 2.25 |
| PTTG1 | pituitary tumor-transforming 1 | 0.91 | 0.87 | 1.70 | 1.76 | 2.42 |
| KPNA2 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) | 0.55 | 0.57 | 1.00 | 1.16 | 2.17 |
| CEP55 | centrosomal protein 55 kDa | 0.64 | 1.51 | 3.00 | 2.33 | 3.65 |
| KIF15 | kinesin family member 15 | 0.08 | 1.37 | 1.77 | 1.81 | 2.12 |
| NDC80 ^a | NDC80 homolog, kinetochore complex component (<i>S. cerevisiae</i>) | 0.58 | 0.83 | 1.91 | 1.66 | 3.16 |
| PTTG2 | pituitary tumor-transforming 2 | 0.89 | 0.87 | 1.87 | 1.94 | 2.25 |
| HAUS6 ^a | HAUS augmin-like complex, subunit 6 | -0.20 | 0.88 | 0.70 | 1.04 | 2.05 |
| SMC4 | structural maintenance of chromosomes 4 | 0.59 | 1.65 | 2.31 | 2.55 | 3.43 |
| RAD54B | RAD54 homolog B (<i>S. cerevisiae</i>) | -0.23 | 0.93 | 1.32 | 1.71 | 2.54 |
| RAD21 | RAD21 homolog (<i>S. pombe</i>) | 0.61 | 1.15 | 1.51 | 1.37 | 2.88 |
| SPC25 | SPC25, NDC80 kinetochore complex component, homolog (<i>S. cerevisiae</i>) | -0.07 | 1.27 | 2.20 | 2.06 | 2.12 |
| MAP9 ^a | microtubule-associated protein 9 | 0.61 | -1.47 | -1.44 | -2.47 | -2.64 |
| CDCA8 | cell division cycle associated 8 | 0.05 | 0.93 | 1.78 | 1.86 | 3.00 |
| CDCA3 ^a | cell division cycle associated 3 | 0.60 | 0.59 | 1.84 | 2.03 | 2.43 |
| ANLN | anillin, actin binding protein | 1.25 | 2.33 | 2.20 | 2.18 | 2.22 |
| NEK2 ^a | NIMA (never in mitosis gene a) -related kinase 2 | 0.98 | 0.82 | 1.96 | 2.40 | 2.86 |
| NUMA1 | nuclear mitotic apparatus protein 1 | -0.03 | -0.50 | -0.04 | -0.75 | -2.09 |
| HAUS6 ^a | HAUS augmin-like complex, subunit 6 | -0.14 | 1.20 | 1.12 | 1.36 | 2.01 |
| PLK1 ^a | polo-like kinase 1 (<i>Drosophila</i>) | 1.08 | 0.82 | 1.91 | 2.52 | 3.52 |

(continued)

SUPPLEMENTARY TABLE S6. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|----------------------|---|---|---|--|--|---|
| CDC20 | cell division cycle 20 homolog (<i>S. cerevisiae</i>) | 0.59 | 0.29 | 1.96 | 2.40 | 2.53 |
| HSPA2 | heat shock 70kDa protein 2 | 0.45 | -0.25 | -1.36 | -2.91 | -3.42 |
| PLK1 ^a | polo-like kinase 1 (<i>Drosophila</i>) | 0.69 | 0.47 | 1.56 | 2.22 | 2.58 |
| PRC1 | protein regulator of cytokinesis 1 | 0.65 | 1.00 | 1.08 | 0.98 | 2.12 |
| ANAPC7 | anaphase promoting complex subunit 7 | 0.71 | 0.47 | 0.46 | 0.33 | 3.39 |
| KIF11 ^a | kinesin family member 11 | 0.46 | 1.34 | 2.51 | 2.32 | 2.66 |
| KIF11 ^a | kinesin family member 11 | 0.27 | 1.21 | 2.11 | 2.01 | 2.63 |
| ASPM | asp (abnormal spindle) homolog, microcephaly associated (<i>Drosophila</i>) | 1.30 | 1.82 | 2.63 | 2.13 | 3.56 |
| PBK | PDZ binding kinase | 0.81 | 1.52 | 1.92 | 2.47 | 3.30 |
| LATS2 | LATS, large tumor suppressor, homolog 2 (<i>Drosophila</i>) | 0.00 | 0.57 | -1.39 | -1.53 | -2.35 |
| HMGA2 | high mobility group AT-hook 2 | -2.69 | 1.10 | 0.42 | 2.63 | 2.96 |
| NCAPD2 | non-SMC condensin I complex, subunit D2 | 0.62 | 0.55 | 2.05 | 2.22 | 2.78 |
| CCNB2 | cyclin B2 | 0.56 | 0.48 | 0.98 | 1.47 | 2.81 |
| KIF20B | kinesin family member 20B | 0.92 | 1.68 | 2.69 | 2.84 | 3.16 |
| OIP5 | Opa interacting protein 5 | 0.07 | 0.63 | 1.21 | 1.72 | 2.19 |
| SKA3 | spindle and kinetochore associated complex subunit 3 | -0.17 | 1.10 | 1.11 | 1.57 | 2.30 |
| HAUS6 ^a | HAUS augmin-like complex, subunit 6 | 0.06 | 1.14 | 1.50 | 1.66 | 2.99 |
| MAP9 ^a | microtubule-associated protein 9 | 0.87 | -1.10 | -1.04 | -1.68 | -2.13 |
| AURKA | aurora kinase A | 0.24 | 0.63 | 1.48 | 1.96 | 2.63 |
| CYP26B1 ^a | cytochrome P450, family 26, subfamily B, polypeptide 1 | -1.28 | -0.31 | -1.27 | -1.97 | -2.41 |
| KIF23 | kinesin family member 23 | 0.22 | 1.28 | 1.40 | 1.19 | 2.06 |
| FAM83D | family with sequence similarity 83, member D | 1.09 | 1.60 | 3.09 | 3.14 | 3.83 |
| CLIP1 | CAP-GLY domain containing linker protein 1 | 0.22 | 0.06 | -0.38 | -0.80 | -2.50 |
| PES1 | pescadillo homolog 1, containing BRCT domain (zebrafish) | -0.02 | -0.10 | 0.02 | -0.03 | 2.35 |
| FANCD2 | Fanconi anemia, complementation group D2 | 0.07 | 1.07 | 1.56 | 2.06 | 2.51 |
| ZWINT | ZW10 interactor | -0.44 | 1.29 | 2.56 | 2.30 | 2.70 |
| CYP26B1 ^a | cytochrome P450, family 26, subfamily B, polypeptide 1 | -1.42 | -0.49 | -1.41 | -2.79 | -3.30 |
| SGOL2 | shugoshin-like 2 (<i>S. pombe</i>) | 0.36 | 1.14 | 0.97 | 1.53 | 2.52 |
| LAMC1 | laminin, gamma 1 (formerly LAMB2) | 1.41 | 0.67 | -0.84 | -1.84 | -2.07 |
| MMP12 ^a | matrix metalloproteinase 12 (macrophage elastase) | -4.03 | -3.90 | -5.33 | -5.35 | -5.89 |
| CCNA2 | cyclin A2 | 0.44 | 0.83 | 1.12 | 1.19 | 2.06 |
| FGF7 ^a | fibroblast growth factor 7 (keratinocyte growth factor) | -0.50 | -0.94 | -3.28 | -2.94 | -3.41 |
| VEGFA | vascular endothelial growth factor A | -1.06 | 0.91 | -0.68 | 0.23 | 2.05 |
| FGF7 ^a | fibroblast growth factor 7 (keratinocyte growth factor) | -0.53 | -0.59 | -3.88 | -3.47 | -3.32 |
| TIMP1 | TIMP metalloproteinase inhibitor 1 | -0.05 | -0.61 | -2.05 | -2.03 | -2.26 |
| SERTAD1 | SERTA domain containing 1 | -1.58 | -0.20 | -1.24 | -1.64 | -2.50 |
| NAP1L1 | nucleosome assembly protein 1-like 1 | 0.41 | 1.23 | 1.90 | 1.72 | 3.11 |
| FOXP1 | forkhead box P1 | -0.58 | 0.75 | 1.64 | 2.21 | 2.05 |
| BNC1 | basonuclin 1 | -0.15 | 0.34 | -0.90 | -1.75 | -2.27 |
| NGF | nerve growth factor (beta polypeptide) | -0.84 | 0.73 | 0.06 | -0.82 | -2.25 |

(continued)

SUPPLEMENTARY TABLE S6. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|--------------------|---|---|---|--|--|---|
| CXCL5 ^a | chemokine (C-X-C motif) ligand 5 | -2.00 | -1.89 | -2.42 | -2.14 | -3.30 |
| KITLG | KIT ligand | -1.18 | 0.32 | -0.87 | -1.53 | -2.19 |
| FGFR1 ^a | fibroblast growth factor receptor 1 | -0.56 | 0.17 | -1.97 | -2.45 | -2.81 |
| KIT | v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog | 1.37 | 1.01 | 2.25 | -1.14 | -2.71 |
| OSR2 ^a | odd-skipped related 2 (<i>Drosophila</i>) | -1.23 | -1.00 | -1.15 | -2.39 | -3.13 |
| HES1 ^a | hairy and enhancer of split 1 (<i>Drosophila</i>) | 0.12 | 1.34 | -0.35 | -1.91 | -2.47 |
| LYN | v-yes-1 Yamaguchi sarcoma viral- related oncogene homolog | -0.11 | -1.24 | -2.22 | -2.19 | -2.65 |
| TNS3 | tensin 3 | 1.64 | -1.09 | -4.45 | -2.86 | -3.16 |
| NTN1 | netrin 1 | 0.09 | -2.34 | -2.75 | -2.86 | -3.10 |
| PBX1 ^a | pre-B-cell leukemia homeobox 1 | -0.78 | -2.26 | -2.95 | -1.91 | -2.78 |
| S1PR1 | sphingosine-1-phosphate receptor 1 | -1.22 | -0.62 | -0.07 | -1.76 | -3.10 |
| F3 | coagulation factor III (thromboplastin, tissue factor) | -1.20 | 1.76 | -0.19 | -2.25 | -2.17 |
| CD40 | CD40 molecule, TNF receptor superfamily member 5 | -0.11 | 0.18 | -1.86 | -1.92 | -2.26 |
| ERBB4 | v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian) | -0.06 | -0.06 | -0.01 | 1.21 | 2.61 |
| FABP4 | fatty acid binding protein 4, adipocyte | 0.07 | -0.01 | -0.21 | 3.59 | 3.16 |
| ADRB2 | adrenergic, beta-2, receptor, surface | -0.80 | 1.52 | 0.40 | -1.79 | -2.43 |
| FGFR1 ^a | fibroblast growth factor receptor 1 | -1.90 | -1.24 | -2.31 | -2.55 | -3.29 |
| PDGFA | platelet-derived growth factor alpha polypeptide | -0.91 | -0.96 | -2.08 | -1.93 | -2.25 |
| HES1 ^a | hairy and enhancer of split 1 (<i>Drosophila</i>) | -0.33 | 1.26 | -0.12 | -1.97 | -3.03 |
| NBN | nibrin | -0.02 | 0.91 | 0.52 | 1.22 | 2.22 |
| PGF | placental growth factor | -0.71 | -1.51 | -1.71 | -1.78 | -2.24 |
| KRAS ^a | v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog | 0.60 | 0.64 | 1.03 | 1.45 | 2.34 |
| CCL2 | chemokine (C-C motif) ligand 2 | 0.78 | 2.55 | -1.39 | -2.94 | -3.73 |
| IL6R | interleukin 6 receptor | 0.49 | -0.22 | -1.01 | -1.11 | -2.29 |
| PDGFRB | platelet-derived growth factor receptor, beta polypeptide | 0.48 | -1.53 | -3.78 | -4.45 | -4.59 |
| MFGE8 | milk fat globule-EGF factor 8 protein | -0.50 | 0.78 | -1.29 | -2.09 | -2.76 |
| ID4 | inhibitor of DNA binding 4, dominant negative helix-loop- helix protein | 0.87 | -1.89 | -1.88 | -1.93 | -2.58 |
| NOTCH4 | Notch homolog 4 (<i>Drosophila</i>) | -0.16 | -0.31 | -0.22 | 0.53 | 3.34 |
| CLU | clusterin | -0.24 | 0.66 | -2.62 | -2.76 | -3.03 |
| ADRA2A | adrenergic, alpha-2-, receptor | 2.19 | -0.52 | -0.70 | -1.74 | -2.29 |
| CXCL5 ^a | chemokine (C-X-C motif) ligand 5 | -4.41 | -3.89 | -4.05 | -4.02 | -5.29 |
| KGFLP1 | keratinocyte growth factor-like protein 1 | -0.56 | -0.68 | -3.92 | -3.38 | -3.40 |
| CDC7 | cell division cycle 7 homolog (<i>S. cerevisiae</i>) | 0.28 | 1.17 | 1.92 | 1.97 | 2.73 |
| KRAS ^a | v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog | 0.60 | 0.55 | 0.92 | 1.24 | 2.65 |
| NRP1 | neuropilin 1 | -0.27 | -1.22 | -1.73 | -1.80 | -2.09 |
| TTK | TTK protein kinase | 0.29 | 1.36 | 1.56 | 1.99 | 3.19 |
| PRRX2 | paired related homeobox 2 | -0.69 | -1.64 | -2.15 | -4.45 | -4.67 |
| CD81 | CD81 molecule | -0.08 | -0.73 | -1.61 | -2.04 | -2.89 |
| OSR2 ^a | odd-skipped related 2 (<i>Drosophila</i>) | -1.25 | -1.03 | -1.10 | -2.16 | -3.63 |
| RPS6KB1 | ribosomal protein S6 kinase, 70 kDa, polypeptide 1 | 0.80 | 0.99 | 0.62 | 0.98 | 2.10 |
| FOSL2 | FOS-like antigen 2 | -0.76 | -0.26 | -0.08 | -0.23 | -2.03 |
| MMP12 ^a | matrix metalloproteinase 12 (macrophage elastase) | -4.11 | -4.05 | -5.77 | -5.75 | -5.99 |

(continued)

SUPPLEMENTARY TABLE S6. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|----------------------|--|---|---|--|--|---|
| FGFR1 ^a | fibroblast growth factor receptor 1 | -1.35 | -0.43 | -2.78 | -2.80 | -3.07 |
| ODC1 | ornithine decarboxylase 1 | -1.26 | 0.20 | 1.06 | 1.54 | 2.43 |
| TCIRG1 | T-cell, immune regulator 1, ATPase, H ⁺ transporting, lysosomal V0 subunit A3 | -0.70 | -0.57 | -1.11 | -1.47 | -2.20 |
| VEGFC | vascular endothelial growth factor C | -2.66 | -0.07 | -1.99 | -2.10 | -2.52 |
| ADA | adenosine deaminase | -1.84 | -2.08 | -2.35 | -2.44 | -2.31 |
| COL18A1 ^a | collagen, type XVIII, alpha 1 | 0.67 | -2.26 | -3.08 | -3.29 | -3.96 |
| TP53I11 | tumor protein p53 inducible protein 11 | 0.72 | 0.15 | -1.65 | -2.39 | -3.13 |
| BDKRB2 | bradykinin receptor B2 | -0.29 | -1.07 | -2.23 | -2.19 | -2.79 |
| DHRS2 | dehydrogenase/reductase (SDR family) member 2 | -0.16 | 2.44 | -0.14 | 1.02 | 2.30 |
| SOD2 | superoxide dismutase 2, mitochondrial | -0.77 | 0.22 | -2.24 | -0.88 | -2.59 |
| PPARG | peroxisome proliferator-activated receptor gamma | 0.84 | 0.59 | 1.60 | 2.76 | 2.43 |
| WNT2 | wingless-type MMTV integration site family member 2 | -0.59 | 0.06 | -1.43 | -2.31 | -2.75 |
| ADM | adrenomedullin | -0.28 | -1.27 | -1.88 | -3.04 | -3.47 |
| WISP2 | WNT1 inducible signaling pathway protein 2 | -2.01 | -3.01 | -3.91 | -4.05 | -4.40 |
| PMP22 | peripheral myelin protein 22 | 0.00 | -0.98 | -1.28 | -2.80 | -2.26 |
| IL8 | interleukin 8 | -5.30 | 2.92 | -4.91 | -3.01 | -3.77 |
| NOX4 ^a | NADPH oxidase 4 | -1.67 | -2.88 | -3.05 | -2.81 | -3.19 |
| IGFBP7 | insulin-like growth factor binding protein 7 | 0.22 | 2.00 | -0.98 | -5.25 | -5.85 |
| EIF2AK2 | eukaryotic translation initiation factor 2-alpha kinase 2 | 0.84 | 1.39 | 1.04 | 1.16 | 2.08 |
| NF2 ^a | neurofibromin 2 (merlin) | -1.35 | -1.55 | -1.15 | -1.86 | -2.63 |
| DPT ^a | dermatopontin | 0.33 | -2.72 | -5.50 | -5.41 | -5.78 |
| F2R | coagulation factor II (thrombin) receptor | -0.30 | 1.57 | 1.18 | 2.05 | 2.04 |
| FABP3 | fatty acid binding protein 3, muscle and heart (mammary-derived growth inhibitor) | -0.88 | -0.35 | -2.10 | -2.30 | -3.19 |
| CDKN2B | cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4) | -0.16 | 0.66 | -2.40 | -2.38 | -2.75 |
| CDKN3 | cyclin-dependent kinase inhibitor 3 | 1.70 | 2.03 | 2.92 | 2.53 | 3.05 |
| MXD4 ^a | MAX dimerization protein 4 | -0.49 | -2.00 | -2.09 | -1.96 | -2.00 |
| NF2 ^a | neurofibromin 2 (merlin) | -1.14 | -1.42 | -1.22 | -2.14 | -2.32 |
| IGFBP3 ^a | insulin-like growth factor binding protein 3 | -1.20 | -0.94 | -2.56 | -4.01 | -3.93 |
| TNFRSF14 | tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator) | 0.53 | -1.16 | -1.88 | -2.25 | -2.60 |
| NF2 ^a | neurofibromin 2 (merlin) | -1.05 | -1.32 | -1.15 | -2.01 | -2.21 |
| PTGES | prostaglandin E synthase | -0.52 | -0.09 | -3.12 | -2.89 | -3.45 |
| CD33 ^a | CD33 molecule | 0.03 | 0.03 | -0.05 | 1.76 | 2.68 |
| S100A11 ^a | S100 calcium binding protein A11 | -0.31 | 0.17 | -0.81 | -1.31 | -2.42 |
| GPNMB | glycoprotein (transmembrane) nmb | 0.48 | -0.55 | -2.60 | -1.83 | -2.56 |
| TENC1 | tensin like C1 domain containing phosphatase (tensin 2) | 0.41 | -0.60 | -1.62 | -1.24 | -2.17 |
| IL6 | interleukin 6 (interferon, beta 2) | 0.13 | 3.73 | 0.02 | -0.83 | -2.59 |
| SCIN | scinderin | 1.93 | -1.99 | -2.57 | -2.38 | -3.09 |
| CBLB ^a | Cas-Br-M (murine) ecotropic retroviral transforming sequence b | -1.51 | -1.27 | -1.26 | -1.65 | -2.89 |
| IGFBP3 ^a | insulin-like growth factor binding protein 3 | -0.86 | -0.84 | -3.68 | -4.87 | -4.36 |

(continued)

SUPPLEMENTARY TABLE S6. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|----------------------|---|---|---|--|--|---|
| NUPR1 | nuclear protein, transcriptional regulator, 1 | 0.66 | -0.47 | -1.41 | -1.19 | -2.55 |
| NFIB ^a | nuclear factor I/B | 0.33 | 2.08 | 2.60 | 1.53 | 2.04 |
| CDKN1A ^a | cyclin-dependent kinase inhibitor 1A (p21, Cip1) | -1.66 | -1.07 | -2.15 | -2.00 | -2.54 |
| B4GALT1 | UDP-Gal:betaGlcNAc beta 1,4-galactosyltransferase, polypeptide 1 | -0.52 | -0.39 | -1.40 | -1.64 | -2.80 |
| NFIB ^a | nuclear factor I/B | 0.13 | 1.80 | 2.40 | 1.30 | 2.06 |
| THBS1 ^a | thrombospondin 1 | 0.79 | 0.14 | -2.31 | -2.74 | -2.85 |
| CAV2 | caveolin 2 | -0.91 | -0.55 | -2.97 | -2.86 | -3.21 |
| COL18A1 ^a | collagen, type XVIII, alpha 1 | 0.11 | -1.17 | -1.16 | -1.21 | -2.09 |
| DPT ^a | dermatopontin | -0.04 | -1.70 | -2.49 | -2.63 | -3.27 |
| TIMP2 | TIMP metalloproteinase inhibitor 2 | 0.04 | -0.91 | -1.52 | -2.05 | -3.00 |
| KLF4 | Kruppel-like factor 4 (gut) | -0.62 | 1.18 | 0.35 | -2.00 | -3.36 |
| IGFBP5 | insulin-like growth factor binding protein 5 | -1.45 | -0.73 | 0.13 | -4.34 | -5.18 |
| NDN | necdin homolog (mouse) | 0.59 | -4.85 | -4.72 | -4.75 | -5.27 |
| SESN1 ^a | sestrin 1 | -0.05 | -0.01 | -2.15 | -1.93 | -2.08 |
| GAS1 | growth arrest-specific 1 | 0.70 | -0.48 | -0.28 | -2.30 | -3.92 |
| TGFBR3 | transforming growth factor, beta receptor III | 0.19 | 0.53 | -0.24 | -1.35 | -2.15 |
| THBS1 ^a | thrombospondin 1 | 1.21 | -0.09 | -3.01 | -3.26 | -3.08 |
| RXRA | retinoid X receptor, alpha | -0.29 | -0.36 | -1.58 | -2.59 | -2.89 |
| GLMN | glomulin, FKBP associated protein | 0.24 | 0.34 | 0.58 | 1.06 | 2.19 |
| HMOX1 | heme oxygenase (decycling) 1 | -3.06 | -3.57 | -2.95 | -2.66 | -3.16 |
| PTGS2 | prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase) | -1.25 | 2.52 | 0.98 | 0.77 | -2.02 |
| FGFRL1 | fibroblast growth factor receptor-like 1 | 0.01 | -1.25 | -2.22 | -2.59 | -3.40 |
| CDKN2A ^a | cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) | -0.24 | -1.22 | -1.52 | -1.71 | -2.34 |
| GAL | galanin prepropeptide | -1.14 | -2.45 | -2.54 | -2.71 | -3.19 |
| VDR | vitamin D (1,25-dihydroxyvitamin D3) receptor | -0.81 | -0.92 | -3.46 | -3.23 | -3.32 |
| S100A11 ^a | S100 calcium binding protein A11 | -0.37 | 0.11 | -0.77 | -1.35 | -2.33 |
| CDKN1C | cyclin-dependent kinase inhibitor 1C (p57, Kip2) | 1.23 | -1.93 | -3.46 | -3.29 | -4.14 |
| IGFBP6 | insulin-like growth factor binding protein 6 | 0.97 | 1.17 | -1.67 | -2.11 | -2.91 |
| CBLB ^a | Cas-Br-M (murine) ecotropic retroviral transforming sequence b | -0.92 | -0.84 | -0.90 | -1.12 | -2.32 |
| ACVRL1 | activin A receptor type II-like 1 | 0.46 | -0.32 | -2.30 | -2.07 | -2.37 |
| NOX4 ^a | NADPH oxidase 4 | -1.44 | -2.42 | -2.59 | -2.39 | -2.74 |
| MXD4 ^a | MAX dimerization protein 4 | 0.23 | -1.27 | -1.29 | -1.44 | -2.42 |
| CD33 ^a | CD33 molecule | 0.07 | 0.22 | 0.03 | 2.69 | 3.43 |
| CDKN2A ^a | cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) | -0.23 | -1.86 | -2.57 | -2.42 | -3.07 |
| ENG | endoglin | -0.26 | -0.49 | -1.79 | -2.12 | -2.73 |
| BMP2 | bone morphogenetic protein 2 | -1.33 | -2.77 | -3.01 | -2.70 | -3.41 |
| SMAD1 | SMAD family member 1 | 1.27 | 1.58 | 0.85 | 0.79 | 2.38 |
| CDKN1A ^a | cyclin-dependent kinase inhibitor 1A (p21, Cip1) | -1.02 | -0.53 | -2.74 | -3.14 | -4.32 |
| CXCL1 | chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha) | -5.17 | 1.20 | -5.68 | -3.16 | -4.75 |

(continued)

SUPPLEMENTARY TABLE S6. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|--------------------|---|---|---|--|--|---|
| IFITM1 | interferon induced transmembrane protein 1 (9-27) | -0.69 | 1.27 | 0.49 | -0.92 | -3.36 |
| CCND2 | cyclin D2 | -0.32 | -0.51 | -1.48 | -1.35 | -2.15 |
| CENPE | centromere protein E, 312 kDa | 0.44 | 0.65 | 1.11 | 1.07 | 2.24 |
| PPP1CB | protein phosphatase 1, catalytic subunit, beta isoform | 0.71 | 0.99 | 0.45 | 0.85 | 2.18 |
| CCND1 ^a | cyclin D1 | -2.39 | -0.99 | -2.29 | -2.87 | -3.92 |
| TBX3 ^a | T-box 3 | -1.35 | -1.17 | -2.15 | -1.57 | -2.31 |
| TGFA | transforming growth factor, alpha | -1.63 | -1.49 | -1.83 | -1.70 | -2.15 |
| SMAD6 | SMAD family member 6 | -0.83 | -0.59 | -1.61 | -2.09 | -2.90 |
| IGF2 | insulin-like growth factor 2 (somatomedin A) | -2.16 | -3.41 | -3.67 | -3.72 | -4.21 |
| TBX3 ^a | T-box 3 | -1.25 | -0.98 | -2.89 | -1.62 | -2.55 |
| STAT5A | signal transducer and activator of transcription 5A | 0.26 | -0.08 | -1.86 | -1.39 | -2.26 |
| FOXP1 ^a | forkhead box G1 | -0.49 | -0.42 | 4.10 | 3.54 | 2.72 |
| ID2 ^a | inhibitor of DNA binding 2, dominant negative helix-loop-helix protein | 0.13 | -0.73 | -1.31 | -3.18 | -4.29 |
| TCF3 | transcription factor 3 (E2A immunoglobulin enhancer binding factors E12/E47) | 0.50 | 0.43 | 1.98 | 1.81 | 2.18 |
| CCND1 ^a | cyclin D1 | -1.61 | -0.20 | -2.12 | -2.38 | -2.77 |
| CITED2 | Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 2 | -0.22 | 0.83 | -0.09 | -1.49 | -3.42 |
| ID2 ^a | inhibitor of DNA binding 2, dominant negative helix-loop-helix protein | -0.36 | -1.24 | -1.64 | -3.32 | -4.35 |
| DLGAP5 | discs, large (<i>Drosophila</i>) homolog-associated protein 5 | 1.75 | 2.04 | 3.01 | 2.91 | 4.28 |
| NUSAP1 | nucleolar and spindle associated protein 1 | 0.55 | 1.10 | 1.83 | 2.16 | 2.50 |
| BIRC5 | baculoviral IAP repeat-containing 5 | 0.54 | 0.74 | 1.29 | 1.92 | 2.62 |

^aIndicate genes with more than one probe on the array.

SUPPLEMENTARY TABLE S7. CANCER TESTIS ANTIGENS

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|----------------------|---|---|---|--|--|---|
| SSX1 | synovial sarcoma, X breakpoint 1 | NA | 0.08 | 0.18 | 3.85 | 5.39 |
| MAGEA1 | melanoma antigen family A, 1 (directs expression of antigen MZ2-E) | NA | 0.02 | 0.13 | 1.84 | 2.91 |
| CEP55 | centrosomal protein 55 kDa | 0.64 | 1.51 | 3.00 | 2.33 | 3.65 |
| PBK | PDZ binding kinase | 0.81 | 1.52 | 1.92 | 2.47 | 3.30 |
| SSX4B ^a | synovial sarcoma, X breakpoint 4B | -0.01 | 0.18 | 0.18 | 3.68 | 4.38 |
| TTK | TTK protein kinase | 0.29 | 1.36 | 1.56 | 1.99 | 3.19 |
| SSX4B ^a | synovial sarcoma, X breakpoint 4B | 0.04 | 0.03 | 0.07 | 3.46 | 4.36 |
| TMEFF2 | transmembrane protein with EGF- like and two follistatin-like domains 2 | 0.31 | 0.75 | 0.93 | 2.25 | 2.70 |
| PAGE1 | P antigen family, member 1 (prostate associated) | -0.06 | 0.04 | 0.01 | 1.88 | 4.87 |
| FAM133A ^a | family with sequence similarity 133, member A | 0.74 | -0.02 | -0.03 | 1.05 | 4.22 |
| ATAD2 ^a | ATPase family, AAA domain containing 2 | -0.56 | 1.38 | 1.83 | 1.74 | 1.52 |
| OIP5 | Opa interacting protein 5 | 0.07 | 0.63 | 1.21 | 1.72 | 2.19 |
| CASC5 ^a | cancer susceptibility candidate 5 | 0.40 | 0.91 | 1.03 | 1.04 | 1.70 |
| SPANXA1 ^a | sperm protein associated with the nucleus, X-linked, family member A1 | -0.16 | 0.03 | 0.09 | 2.99 | 1.98 |
| SPAG9 | sperm associated antigen 9 | 0.78 | 1.34 | 0.97 | 0.86 | 0.96 |
| MAGEA2B | melanoma antigen family A, 2B | -0.08 | 0.04 | 0.08 | 1.20 | 3.66 |
| SSX3 | synovial sarcoma, X breakpoint 3 | -0.04 | -0.04 | -0.02 | 1.26 | 3.69 |
| FAM133A ^a | family with sequence similarity 133, member A | 0.59 | -0.08 | -0.11 | 0.86 | 3.23 |
| SPANXD | SPANX family, member D | 0.00 | 0.07 | 0.12 | 2.66 | 1.52 |
| SSX7 | synovial sarcoma, X breakpoint 7 | 0.10 | 0.06 | 0.00 | 1.39 | 2.71 |
| SPANXB2 | SPANX family, member B2 | -0.06 | 0.02 | 0.04 | 2.88 | 0.96 |
| MAGEA12 | melanoma antigen family A, 12 | -0.03 | -0.10 | 0.11 | 0.91 | 2.92 |
| LDHC | lactate dehydrogenase C | -0.22 | 0.38 | 1.00 | 1.03 | 1.35 |
| CEP290 ^a | centrosomal protein 290 kDa | 0.19 | 0.98 | 0.20 | 0.53 | 1.44 |
| CASC5 ^a | cancer susceptibility candidate 5 | 0.00 | 0.60 | 0.42 | 0.82 | 1.30 |
| PAGE5 | P antigen family, member 5 (prostate associated) | -0.09 | 0.01 | 0.02 | 0.37 | 2.77 |
| CCDC62 | coiled-coil domain containing 62 | -0.12 | 0.93 | -0.04 | 1.09 | 1.20 |
| PLAC1 | placenta-specific 1 | -0.06 | 0.19 | -0.03 | 0.73 | 2.09 |
| SPANXA1 ^a | sperm protein associated with the nucleus, X-linked, family member A1 | -0.12 | 0.00 | 0.07 | 1.86 | 1.07 |
| PAGE2B | P antigen family, member 2B | -0.04 | 0.07 | -0.01 | 0.38 | 2.43 |
| ATAD2 ^a | ATPase family, AAA domain containing 2 | -0.18 | 0.27 | 0.56 | 0.46 | 1.68 |
| CEP290 ^a | centrosomal protein 290 kDa | 0.05 | 0.72 | -0.01 | 0.36 | 1.59 |
| LUZP4 | leucine zipper protein 4 | 0.02 | -0.10 | 0.03 | 1.86 | 0.88 |
| PAGE2 | P antigen family, member 2 (prostate associated) | -0.11 | 0.02 | 0.05 | 0.16 | 2.43 |
| SSX9 | synovial sarcoma, X breakpoint 9 | 0.08 | 0.03 | 0.03 | 1.44 | 0.93 |
| CT47A11 ^a | cancer/testis antigen family 47, member A11 | -0.06 | -0.06 | 0.01 | 0.28 | 2.27 |
| MAGEA4 | melanoma antigen family A, 4 | 0.02 | 0.02 | 0.06 | 0.36 | 1.94 |
| MAGEA6 | melanoma antigen family A, 6 | 0.01 | -0.09 | -0.05 | 0.29 | 2.17 |
| CT47A11 ^a | cancer/testis antigen family 47, member A11 | -0.17 | 0.01 | 0.18 | 0.29 | 1.97 |
| XAGE3 | X antigen family, member 3 | 0.03 | 0.10 | 0.15 | 0.20 | 1.76 |
| CSAG1 | chondrosarcoma associated gene 1 | 0.00 | -0.10 | -0.13 | 0.28 | 2.14 |
| CSAG2 ^a | CSAG family, member 2 | 0.06 | 0.05 | 0.00 | 0.28 | 1.71 |
| LY6K | lymphocyte antigen 6 complex, locus K | -0.84 | 1.08 | 1.35 | 0.70 | -0.24 |

(continued)

SUPPLEMENTARY TABLE S7. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|--------------------|--|---|---|--|--|---|
| CSAG2 ^a | CSAG family, member 2 | 0.00 | -0.07 | 0.00 | 0.28 | 1.68 |
| MAGEC1 | melanoma antigen family C, 1 | -0.06 | 0.44 | 0.02 | -0.02 | 1.47 |
| CT47B1 | cancer/testis antigen family 147, member B1 | -0.07 | -0.04 | -0.09 | 0.12 | 1.59 |
| GAGE7 | G antigen 7 | -0.01 | -0.01 | -0.01 | 0.16 | 1.38 |
| SPAG4 | sperm associated antigen 4 | -0.24 | 1.21 | -0.21 | 0.93 | -0.30 |
| TSGA10 | testis specific, 10 | 0.16 | 1.71 | -0.39 | -0.04 | -0.07 |
| CTAGE1 | cutaneous T-cell lymphoma- associated antigen 1 | -0.12 | 1.23 | 0.12 | 0.10 | -0.01 |
| CPXCR1 | CPX chromosome region, candidate 1 | 0.09 | -0.06 | 0.06 | 0.02 | 1.02 |

^aIndicate genes with more than one probe on the array.

SUPPLEMENTARY TABLE S8. LIST OF GENES INVOLVED INTO NEGATIVE REGULATION OF PROGRAMMED CELL DEATH

| Gene name | Description | <i>cen3tel PD37</i> | <i>cen3tel PD97</i> | <i>cen3tel PD167</i> | <i>cen3tel PD618</i> | <i>cen3tel PD1034</i> |
|-----------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | <i>vs PD15</i> logFC | <i>vs PD15</i> logFC | <i>vs PD15</i> logFC | <i>vs PD15</i> logFC | <i>vs PD15</i> logFC |
| SPHK1 | sphingosine kinase 1 | -2.21 | -0.46 | -1.47 | -0.76 | -1.22 |
| NEFL ^a | neurofilament, light polypeptide | 0.43 | 5.15 | 0.38 | 0.98 | 0.31 |
| NR4A2 | nuclear receptor subfamily 4, group A, member 2 | -0.03 | 2.32 | 1.24 | 0.27 | -0.18 |
| PRDX2 ^a | peroxiredoxin 2 | -0.22 | -2.00 | -0.15 | -0.60 | -1.32 |
| BNIP3 | BCL2/adenovirus E1B 19 kDa interacting protein 3 | 0.12 | 2.46 | -0.28 | 1.96 | 1.33 |
| PRDX2 ^a | peroxiredoxin 2 | -0.17 | -2.26 | -0.15 | -0.54 | -1.67 |
| NEFL ^a | neurofilament, light polypeptide | -0.06 | 2.85 | 0.05 | 0.23 | -0.23 |
| BDNF ^a | brain-derived neurotrophic factor | -0.07 | 1.48 | 2.82 | 0.29 | -0.29 |
| BDNF ^a | brain-derived neurotrophic factor | 0.65 | 2.31 | 3.28 | 1.04 | 0.96 |
| IL7 | interleukin 7 | -0.58 | -1.96 | -3.05 | -1.14 | -1.35 |
| ANXA1 | annexin A1 | -0.27 | 0.24 | -0.47 | -2.07 | -1.40 |
| FAS | Fas (TNF receptor superfamily, member 6) | -0.53 | 0.89 | -2.22 | -2.04 | -1.26 |
| ASNS | asparagine synthetase | 1.91 | 3.01 | 1.70 | 2.05 | 1.85 |
| SERPINB2 ^a | serpin peptidase inhibitor, clade B (ovalbumin), member 2 | -2.98 | 0.00 | -2.18 | -3.54 | -4.17 |
| BDKRB2 | bradykinin receptor B2 | -0.29 | -1.07 | -2.23 | -2.19 | -2.79 |
| DHRS2 | dehydrogenase/reductase (SDR family) member 2 | -0.16 | 2.44 | -0.14 | 1.02 | 2.30 |
| SOD2 | superoxide dismutase 2, mitochondrial | -0.77 | 0.22 | -2.24 | -0.88 | -2.59 |
| G2E3 ^a | G2/M-phase specific E3 ubiquitin ligase | 0.52 | 1.17 | 1.41 | 1.23 | 2.21 |
| CASP2 ^a | caspase 2, apoptosis-related cysteine peptidase | -0.85 | 0.22 | -0.52 | -1.63 | -3.18 |
| CRYAB | crystallin, alpha B | 0.47 | -0.53 | -1.24 | -2.34 | -3.82 |
| VEGFA | vascular endothelial growth factor A | -1.06 | 0.91 | -0.68 | 0.23 | 2.05 |
| EYA1 | eyes absent homolog 1 (<i>Drosophila</i>) | 1.32 | -0.21 | -0.18 | 0.72 | 2.73 |
| TBX3 ^a | T-box 3 | -1.25 | -0.98 | -2.89 | -1.62 | -2.55 |
| ATG5 | ATG5 autophagy related 5 homolog (<i>S. cerevisiae</i>) | 0.94 | 1.14 | 0.77 | 1.27 | 2.44 |
| GDNF | glial cell derived neurotrophic factor | -1.38 | -0.54 | -0.07 | -0.92 | -2.00 |
| F2R | coagulation factor II (thrombin) receptor | -0.30 | 1.57 | 1.18 | 2.05 | 2.04 |
| NGF | nerve growth factor (beta polypeptide) | -0.84 | 0.73 | 0.06 | -0.82 | -2.25 |
| FURIN | furin (paired basic amino acid cleaving enzyme) | -0.87 | -0.91 | -2.14 | -2.00 | -3.00 |
| DAPK1 | death-associated protein kinase 1 | 2.10 | 1.25 | 1.77 | -2.03 | -2.85 |
| SOCS2 ^a | suppressor of cytokine signaling 2 | 0.07 | 0.18 | -1.60 | -2.45 | -2.61 |
| KIT | v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog | 1.37 | 1.01 | 2.25 | -1.14 | -2.71 |
| CDC2 | cell division cycle 2, G1 to S and G2 to M | 0.04 | 1.24 | 2.58 | 2.28 | 2.60 |
| TWIST2 | twist homolog 2 (<i>Drosophila</i>) | 1.00 | -0.26 | -1.76 | -2.19 | -2.76 |
| AKT1S1 | AKT1 substrate 1 (proline-rich) | -0.77 | -0.87 | -0.80 | -0.90 | -2.51 |
| SOCS3 | suppressor of cytokine signaling 3 | -0.78 | -0.55 | -1.42 | -1.44 | -2.74 |
| PRLR ^a | prolactin receptor | -1.97 | -2.46 | -3.19 | -2.56 | -2.55 |
| BIRC3 | baculoviral IAP repeat-containing 3 | -2.45 | 2.12 | -1.23 | -1.22 | -2.58 |
| COMP ^a | cartilage oligomeric matrix protein | 0.31 | -2.96 | -3.03 | -2.91 | -3.64 |
| IGF2 | insulin-like growth factor 2 (somatomedin A) | -2.16 | -3.41 | -3.67 | -3.72 | -4.21 |
| IL6 | interleukin 6 (interferon, beta 2) | 0.13 | 3.73 | 0.02 | -0.83 | -2.59 |
| TAF9B ^a | TAF9B RNA polymerase II, TATA box binding protein (TBP)-associated factor, 31kDa | 0.53 | 0.14 | 0.57 | 0.64 | 3.01 |
| F3 | coagulation factor III (thromboplastin, tissue factor) | -1.20 | 1.76 | -0.19 | -2.25 | -2.17 |
| STAT5A | signal transducer and activator of transcription 5 ^o | 0.26 | -0.08 | -1.86 | -1.39 | -2.26 |

(continued)

SUPPLEMENTARY TABLE S8. (CONTINUED)

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 vs PD15 logFC</i> | <i>cen3tel PD97 vs PD15 logFC</i> | <i>cen3tel PD167 vs PD15 logFC</i> | <i>cen3tel PD618 vs PD15 logFC</i> | <i>cen3tel PD1034 vs PD15 logFC</i> |
|-----------------------|---|---|---|--|--|---|
| CLCF1 | cardiotrophin-like cytokine factor 1 | -1.07 | 0.20 | 0.03 | -1.19 | -2.35 |
| CITED2 | Cbp/p300-interacting transactivator, with Glu/Asp-rich carboxy-terminal domain, 2 | -0.22 | 0.83 | -0.09 | -1.49 | -3.42 |
| CDKN1A ^a | cyclin-dependent kinase inhibitor 1A (p21, Cip1) | -1.66 | -1.07 | -2.15 | -2.00 | -2.54 |
| BIRC5 | baculoviral IAP repeat-containing 5 | 0.54 | 0.74 | 1.29 | 1.92 | 2.62 |
| THBS1 ^a | thrombospondin 1 | 0.79 | 0.14 | -2.31 | -2.74 | -2.85 |
| SFRP1 ^a | secreted frizzled-related protein 1 | 0.14 | -2.65 | -1.65 | -3.79 | -4.63 |
| GRIK2 | glutamate receptor, ionotropic, kainate 2 | 1.06 | 0.86 | -1.74 | -2.14 | -2.20 |
| KRAS ^a | v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog | 0.60 | 0.64 | 1.03 | 1.45 | 2.34 |
| CCL2 | chemokine (C-C motif) ligand 2 | 0.78 | 2.55 | -1.39 | -2.94 | -3.73 |
| TBX3 ^a | T-box 3 | -1.35 | -1.17 | -2.15 | -1.57 | -2.31 |
| SFRP1 ^a | secreted frizzled-related protein 1 | 0.12 | -2.53 | -1.69 | -3.69 | -4.80 |
| G2E3 ^a | G2/M-phase specific E3 ubiquitin ligase | 0.33 | 1.39 | 1.15 | 0.98 | 2.10 |
| HSPD1 ^a | heat-shock 60 kDa protein 1 (chaperonin) | -0.42 | 0.72 | 1.21 | 1.91 | 2.61 |
| GCLM | glutamate-cysteine ligase, modifier subunit | -0.42 | 0.02 | 0.79 | 1.25 | 2.72 |
| THBS1 ^a | thrombospondin 1 | 1.21 | -0.09 | -3.01 | -3.26 | -3.08 |
| CEBPB | CCAAT/enhancer binding protein (C/ EBP), beta | -1.31 | -1.30 | -2.19 | -2.22 | -3.42 |
| HMOX1 | heme oxygenase (decycling) 1 | -3.06 | -3.57 | -2.95 | -2.66 | -3.16 |
| CLU | clusterin | -0.24 | 0.66 | -2.62 | -2.76 | -3.03 |
| PRLR ^a | prolactin receptor | -2.29 | -2.11 | -2.94 | -2.49 | -3.10 |
| SERPINB2 ^a | serpin peptidase inhibitor, clade B (ovalbumin), member 2 | -2.75 | -0.09 | -2.04 | -3.20 | -4.16 |
| HTATIP2 | HIV-1 Tat interactive protein 2, 30 kDa | 0.92 | 0.11 | -0.81 | -1.54 | -3.43 |
| PEA15 ^a | phosphoprotein enriched in astrocytes 15 | -0.15 | 0.08 | -0.83 | -1.37 | -2.78 |
| SORT1 | sortilin 1 | 0.22 | 0.65 | 1.52 | -1.72 | -2.35 |
| KRAS ^a | v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog | 0.60 | 0.55 | 0.92 | 1.24 | 2.65 |
| ARHGDI1A | Rho GDP dissociation inhibitor (GDI) alpha | -0.53 | -0.51 | -0.32 | -0.14 | -2.06 |
| HSPD1 ^a | heat shock 60 kDa protein 1 (chaperonin) | 0.14 | 0.54 | 0.85 | 1.73 | 3.35 |
| SMAD6 | SMAD family member 6 | -0.83 | -0.59 | -1.61 | -2.09 | -2.90 |
| PPT1 ^a | palmitoyl-protein thioesterase 1 | 1.08 | 0.55 | 1.36 | 1.36 | 2.47 |
| BCL2A1 | BCL2-related protein A1 | -0.17 | -1.49 | -2.69 | -2.46 | -3.07 |
| SOCS2 ^a | suppressor of cytokine signaling 2 | -0.07 | 0.06 | -1.74 | -2.21 | -2.80 |
| COMP ^a | cartilage oligomeric matrix protein | 0.26 | -2.32 | -2.46 | -2.47 | -3.20 |
| PPT1 ^a | palmitoyl-protein thioesterase 1 | 1.28 | 0.66 | 1.23 | 0.92 | 2.63 |
| CASP2 ^a | caspase 2, apoptosis-related cysteine peptidase | -0.48 | 0.73 | -0.07 | -1.37 | -3.35 |
| TAF9B ^a | TAF9B RNA polymerase II, TATA box binding protein (TBP)-associated factor, 31 kDa | 0.65 | 0.33 | 1.70 | 1.22 | 2.49 |
| MSH2 | mutS homolog 2, colon cancer, nonpolyposis type 1 (<i>E. coli</i>) | 0.03 | 1.50 | 1.99 | 2.04 | 2.56 |
| ADA | adenosine deaminase | -1.84 | -2.08 | -2.35 | -2.44 | -2.31 |
| CDKN1A ^a | cyclin-dependent kinase inhibitor 1A (p21, Cip1) | -1.02 | -0.53 | -2.74 | -3.14 | -4.32 |
| TNFAIP3 | tumor necrosis factor, alpha-induced protein 3 | -1.72 | 3.19 | -0.53 | -0.51 | -2.52 |
| PEA15 ^a | phosphoprotein enriched in astrocytes 15 | -0.12 | 0.02 | -0.98 | -1.37 | -2.49 |

^aIndicate genes with more than one probe on the array.

SUPPLEMENTARY TABLE S9. LIST OF GENES BELONGING TO THE HAN_SATB1_TARGETS_DN GENESET

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|------------------|---|---|---|--|--|---|
| IL6 | interleukin 6 (interferon, beta 2) | 0.13 | 3.73 | 0.02 | -0.83 | -2.59 |
| KLF5 | Kruppel-like factor 5 (intestinal) | 1.43 | 3.54 | 0.34 | 0.91 | 0.02 |
| F2RL2 | coagulation factor II (thrombin) receptor-like 2 | 0.08 | 3.15 | 1.67 | 1.96 | 1.90 |
| IL8 | interleukin 8 | -5.30 | 2.92 | -4.91 | -3.01 | -3.77 |
| SLC7A11 | solute carrier family 7, (cationic amino acid transporter, y + system) member 11 | 0.71 | 2.63 | 1.87 | 0.61 | 1.15 |
| OAS1 | 2',5'-oligoadenylate synthetase 1, 40/46 kDa | -1.41 | 2.62 | 1.61 | 1.16 | -1.60 |
| EMR1 | egf-like module containing, mucin- like, hormone receptor-like 1 | -0.07 | 2.60 | 2.88 | 3.28 | 4.14 |
| CCL2 | chemokine (C-C motif) ligand 2 | 0.78 | 2.55 | -1.39 | -2.94 | -3.73 |
| PTGS2 | prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase) | -1.25 | 2.52 | 0.98 | 0.77 | -2.02 |
| DNAJB4 | DnaJ (Hsp40) homolog, subfamily B, member 4 | 0.18 | 2.19 | 0.68 | 0.08 | 1.17 |
| OAS3 | 2'-5'-oligoadenylate synthetase 3, 100 kDa | -0.82 | 2.49 | 1.60 | 1.41 | -0.61 |
| AK3L1 | adenylate kinase 3-like 1 | -0.48 | 2.21 | 1.16 | 1.85 | 1.89 |
| BNIP3 | BCL2/adenovirus E1B 19 kDa interacting protein 3 | 0.12 | 2.46 | -0.28 | 1.96 | 1.33 |
| MX2 | myxovirus (influenza virus) resistance 2 (mouse) | -1.14 | 2.30 | -0.01 | -0.38 | -2.04 |
| BDNF | brain-derived neurotrophic factor | 0.65 | 2.31 | 3.28 | 1.04 | 0.96 |
| APOL3 | apolipoprotein L, 3 | 1.28 | 2.29 | 0.25 | 0.58 | 0.04 |
| INHBA | inhibin, beta A | -2.18 | 2.25 | 1.09 | 0.55 | 0.60 |
| IFIT3 | interferon-induced protein with tetratricopeptide repeats 3 | -0.71 | 2.13 | 1.30 | 2.14 | -0.24 |
| STXBP6 | syntaxin binding protein 6 (amisyn) | -0.38 | 2.05 | 1.38 | 0.65 | 0.84 |
| ANKRD1 | ankyrin repeat domain 1 (cardiac muscle) | -1.36 | 2.04 | 1.67 | 0.97 | 0.08 |
| QPCT | glutaminyl-peptide cyclotransferase | -0.18 | -2.15 | -2.55 | -2.62 | -3.11 |
| IL13RA2 | interleukin 13 receptor, alpha 2 | -2.63 | -2.17 | -3.83 | -3.09 | -3.21 |

SUPPLEMENTARY TABLE S10. LIST OF GENES BELONGING
TO THE WINNEPENNINCKX_MELANOMA_METASTASIS_UP GENESET

| <i>Gene name</i> | <i>Description</i> | <i>cen3tel PD37 versus PD15 logFC</i> | <i>cen3tel PD97 versus PD15 logFC</i> | <i>cen3tel PD167 versus PD15 logFC</i> | <i>cen3tel PD618 versus PD15 logFC</i> | <i>cen3tel PD1034 versus PD15 logFC</i> |
|------------------|--|---|---|--|--|---|
| DLGAP5 | discs, large (<i>Drosophila</i>) homolog-associated protein 5 | 1.75 | 2.04 | 3.01 | 2.91 | 4.28 |
| CEP55 | centrosomal protein 55 kDa | 0.64 | 1.51 | 3.00 | 2.33 | 3.65 |
| ASPM | asp (abnormal spindle) homolog, microcephaly associated (<i>Drosophila</i>) | 1.30 | 1.82 | 2.63 | 2.13 | 3.56 |
| DHFR | dihydrofolate reductase | 0.35 | 0.63 | 0.67 | 0.40 | 3.53 |
| BUB1 | budding uninhibited by benzimidazoles 1 homolog (yeast) | 1.07 | 1.56 | 2.14 | 2.66 | 3.46 |
| HSPD1 | heat shock 60 kDa protein 1 (chaperonin) | -0.42 | 0.72 | 1.21 | 1.91 | 2.61 |
| NDC80 | NDC80 homolog, kinetochore complex component (<i>S. cerevisiae</i>) | 0.48 | 1.20 | 2.46 | 1.94 | 3.28 |
| C12ORF48 | chromosome 12 open reading frame 48 | 0.62 | 1.08 | 1.62 | 1.78 | 3.17 |
| NUF2 | NUF2, NDC80 kinetochore complex component, homolog (<i>S. cerevisiae</i>) | 0.47 | 1.43 | 2.28 | 2.47 | 3.16 |
| CDKN3 | cyclin-dependent kinase inhibitor 3 | 1.70 | 2.03 | 2.92 | 2.53 | 3.05 |
| ECT2 | epithelial cell transforming sequence 2 oncogene | 0.73 | 1.71 | 1.81 | 1.73 | 3.04 |
| CDCA8 | cell division cycle associated 8 | 0.05 | 0.93 | 1.78 | 1.86 | 3.00 |
| CCNB1 | cyclin B1 | 0.75 | 0.44 | 1.90 | 1.97 | 2.93 |
| CENPA | centromere protein A | 0.88 | 0.97 | 2.04 | 2.41 | 2.90 |
| NEK2 | NIMA (never in mitosis gene a)-related kinase 2 | 0.98 | 0.82 | 1.96 | 2.40 | 2.86 |
| CCNB2 | cyclin B2 | 0.56 | 0.48 | 0.98 | 1.47 | 2.81 |
| IPO7 | importin 7 | 0.12 | 0.10 | 0.27 | 0.04 | 2.78 |
| RACGAP1 | Rac GTPase activating protein 1 | 0.40 | 1.14 | 1.59 | 1.58 | 2.26 |
| SPAG5 | sperm associated antigen 5 | 0.35 | 0.95 | 1.63 | 2.08 | 2.75 |
| ZWINT | ZW10 interactor | -0.44 | 1.29 | 2.56 | 2.30 | 2.70 |
| KIF11 | kinesin family member 11 | 0.46 | 1.34 | 2.51 | 2.32 | 2.66 |
| AURKA | aurora kinase A | 0.24 | 0.63 | 1.48 | 1.96 | 2.63 |
| C15ORF23 | chromosome 15 open reading frame 23 | 0.09 | 0.61 | 0.80 | 1.64 | 2.62 |
| BIRC5 | baculoviral IAP repeat-containing 5 | 0.54 | 0.74 | 1.29 | 1.92 | 2.62 |
| NCAPG | non-SMC condensin I complex, subunit G | -0.48 | 1.24 | 1.67 | 1.63 | 2.61 |
| KIF2C | kinesin family member 2C | 0.08 | 0.48 | 1.81 | 1.91 | 2.59 |
| SGOL2 | shugoshin-like 2 (<i>S. pombe</i>) | 0.36 | 1.14 | 0.97 | 1.53 | 2.52 |
| TOP2A | topoisomerase (DNA) II alpha 170 kDa | 0.71 | 1.64 | 2.25 | 2.24 | 2.47 |
| PTTG1 | pituitary tumor-transforming 1 | 0.91 | 0.87 | 1.70 | 1.76 | 2.42 |
| NCAPH | non-SMC condensin I complex, subunit H | -0.41 | 0.58 | 1.55 | 2.03 | 2.38 |
| KIAA0101 | KIAA0101 | -0.37 | 1.86 | 1.61 | 2.13 | 2.35 |
| NEIL3 | nei endonuclease VIII-like 3 (<i>E. coli</i>) | 0.15 | 1.57 | 2.67 | 1.93 | 2.33 |
| ENY2 | enhancer of yellow 2 homolog (<i>Drosophila</i>) | 0.29 | 0.83 | 1.12 | 1.71 | 2.28 |
| PTTG2 | pituitary tumor-transforming 2 | 0.89 | 0.87 | 1.87 | 1.94 | 2.25 |
| CKS2 | CDC28 protein kinase regulatory subunit 2 | 0.54 | 0.52 | 1.61 | 1.98 | 2.25 |
| ANLN | anillin, actin binding protein | 1.25 | 2.33 | 2.20 | 2.18 | 2.22 |
| PAICS | phosphoribosylaminoimidazole carboxylase, phosphoribosylaminoimidazole succinocarboxamide synthetase | -0.14 | 0.75 | 0.93 | 0.97 | 2.17 |
| KPNA2 | karyopherin alpha 2 (RAG cohort 1, importin alpha 1) | 0.55 | 0.57 | 1.00 | 1.16 | 2.17 |
| SPC25 | SPC25, NDC80 kinetochore complex component, homolog (<i>S. cerevisiae</i>) | -0.07 | 1.27 | 2.20 | 2.06 | 2.12 |
| PRC1 | protein regulator of cytokinesis 1 | 0.65 | 1.00 | 1.08 | 0.98 | 2.12 |
| NASP | nuclear autoantigenic sperm protein (histone-binding) | -0.09 | 0.80 | 1.57 | 1.54 | 2.10 |