

Table S3 The percentage of chromosome participation for differentially expressed genes obtained from microarray analysis of 11 cancers including breast, endometrial, ovarian, prostate, testicular, colorectal, liver, gastric, pancreatic, lung cancers and glioblastoma. chr4 is harboring the highest number of genes altered in cancer (excluding prostate and gastric cancers). In contrast, chrY has the lowest number of genes expressed in cancer.

| Chr. | Breast | | Endometrial | | Ovarian | | Prostate | | Testicular | | Brain | | Lung | | Colorectal | | Gastric | | Liver | | Pancreatic | |
|------|-----------------|-----------------|-------------|------|---------|------|----------|------|------------|-------|-------|------|------|------|------------|------|---------|------|-------|------|------------|------|
| | ^a DE | ^b OE | DE | OE | DE | OE | DE | OE | DE | OE | DE | OE | DE | OE | DE | OE | DE | OE | DE | OE | DE | OE |
| 1 | 2.82 | 2.41 | 3.11 | 2.74 | 8.65 | 2.65 | 1.10 | 0.78 | 7.39 | 17.64 | 1.77 | 2.97 | 4.81 | 4.01 | 2.70 | 0.97 | 1.31 | 1.04 | 2.24 | 4.40 | 0.35 | 0.58 |
| 2 | 3.53 | 2.67 | 3.84 | 3.03 | 8.83 | 2.64 | 1.20 | 1.07 | 9.93 | 15.42 | 2.25 | 2.59 | 4.97 | 3.89 | 2.98 | 0.71 | 1.20 | 1.41 | 2.17 | 2.14 | 0.37 | 0.60 |
| 3 | 3.56 | 1.83 | 3.90 | 1.29 | 9.29 | 2.64 | 1.57 | 0.85 | 10.45 | 11.77 | 2.39 | 3.40 | 5.57 | 5.38 | 3.02 | 0.60 | 0.82 | 0.82 | 2.36 | 2.64 | 0.22 | 0.47 |
| 4 | 4.24 | 2.75 | 5.59 | 2.07 | 14.96 | 1.85 | 1.35 | 1.53 | 14.02 | 10.59 | 3.38 | 3.06 | 6.80 | 2.97 | 5.63 | 1.13 | 1.67 | 1.04 | 5.05 | 1.71 | 0.59 | 1.08 |
| 5 | 4.00 | 3.29 | 4.47 | 2.82 | 11.99 | 2.27 | 1.14 | 1.25 | 15.24 | 9.48 | 2.70 | 2.43 | 5.84 | 3.41 | 3.80 | 1.02 | 1.29 | 1.29 | 2.27 | 3.02 | 0.04 | 0.24 |
| 6 | 3.62 | 2.69 | 3.87 | 2.14 | 9.77 | 1.76 | 1.24 | 1.17 | 12.08 | 6.77 | 2.52 | 4.11 | 6.63 | 3.87 | 3.04 | 1.04 | 0.97 | 0.86 | 2.17 | 4.07 | 0.24 | 0.59 |
| 7 | 3.66 | 2.15 | 3.63 | 1.22 | 8.58 | 2.03 | 1.15 | 1.33 | 6.70 | 15.32 | 1.55 | 5.51 | 4.59 | 3.33 | 2.52 | 1.41 | 0.96 | 1.70 | 2.40 | 3.18 | 0.44 | 0.85 |
| 8 | 4.67 | 2.59 | 4.87 | 2.59 | 9.79 | 3.86 | 1.17 | 1.62 | 13.04 | 10.71 | 2.99 | 3.81 | 5.02 | 5.23 | 2.49 | 1.73 | 0.71 | 1.37 | 2.33 | 4.57 | 0.15 | 0.51 |
| 9 | 3.25 | 2.35 | 4.24 | 1.51 | 9.98 | 1.41 | 0.94 | 0.89 | 8.15 | 13.47 | 2.07 | 2.59 | 4.94 | 2.64 | 2.54 | 0.61 | 0.89 | 0.47 | 3.39 | 1.32 | 0.28 | 0.71 |
| 10 | 3.22 | 2.72 | 3.67 | 2.49 | 8.25 | 2.09 | 0.86 | 0.77 | 12.38 | 8.70 | 3.76 | 1.99 | 5.26 | 3.81 | 2.99 | 0.82 | 1.27 | 0.95 | 2.36 | 3.31 | 0.27 | 0.54 |
| 11 | 2.89 | 2.59 | 3.37 | 2.01 | 8.27 | 3.00 | 1.19 | 1.36 | 10.89 | 9.39 | 1.67 | 3.34 | 5.55 | 3.37 | 2.79 | 0.88 | 1.09 | 0.99 | 2.93 | 2.14 | 0.27 | 0.51 |
| 12 | 2.99 | 2.41 | 3.85 | 2.38 | 8.64 | 2.45 | 1.15 | 1.15 | 7.06 | 19.45 | 2.70 | 2.95 | 4.83 | 4.50 | 2.77 | 0.94 | 0.76 | 0.72 | 3.31 | 2.16 | 0.25 | 0.61 |
| 13 | 3.76 | 2.16 | 5.76 | 2.00 | 12.00 | 1.84 | 1.04 | 2.16 | 10.80 | 9.60 | 2.80 | 2.16 | 6.56 | 1.52 | 1.76 | 2.08 | 0.32 | 1.12 | 2.72 | 1.52 | 0.08 | 0.56 |
| 14 | 3.40 | 1.78 | 2.79 | 2.45 | 9.48 | 2.23 | 0.78 | 0.78 | 9.70 | 8.42 | 1.73 | 1.73 | 3.68 | 4.29 | 3.96 | 0.61 | 1.23 | 1.17 | 1.67 | 3.07 | 0.56 | 0.33 |
| 15 | 2.43 | 2.60 | 4.19 | 2.26 | 11.26 | 2.09 | 1.02 | 1.02 | 9.05 | 12.67 | 2.71 | 1.70 | 4.07 | 3.51 | 2.71 | 0.57 | 0.85 | 1.02 | 1.41 | 2.88 | 0.28 | 0.45 |
| 16 | 1.69 | 2.80 | 2.89 | 1.54 | 7.37 | 1.54 | 0.77 | 0.82 | 5.01 | 14.75 | 1.30 | 1.59 | 4.34 | 2.22 | 2.75 | 0.72 | 1.54 | 0.43 | 3.47 | 1.06 | 0.77 | 0.39 |
| 17 | 2.12 | 1.84 | 2.70 | 1.73 | 7.25 | 1.70 | 0.94 | 0.52 | 8.77 | 8.11 | 1.25 | 2.70 | 4.09 | 3.50 | 1.60 | 0.97 | 0.73 | 0.94 | 1.60 | 1.42 | 0.21 | 0.24 |
| 18 | 3.08 | 2.05 | 3.18 | 1.33 | 12.51 | 1.13 | 1.33 | 0.82 | 7.59 | 8.82 | 2.56 | 2.87 | 4.21 | 5.74 | 4.10 | 0.51 | 1.13 | 1.03 | 1.44 | 2.05 | 0.41 | 0.31 |
| 19 | 1.30 | 1.89 | 3.29 | 1.16 | 3.85 | 2.07 | 0.49 | 0.53 | 5.81 | 12.89 | 0.60 | 1.65 | 3.85 | 1.96 | 1.02 | 0.77 | 0.49 | 0.56 | 2.00 | 0.67 | 0.07 | 0.39 |
| 20 | 2.84 | 1.72 | 2.58 | 2.12 | 5.29 | 2.71 | 0.66 | 0.53 | 4.37 | 10.65 | 1.19 | 3.04 | 4.03 | 3.37 | 0.73 | 2.91 | 0.26 | 1.26 | 1.06 | 1.92 | 0.00 | 0.33 |
| 21 | 3.07 | 2.78 | 5.71 | 1.61 | 7.03 | 3.51 | 0.73 | 2.20 | 7.91 | 15.52 | 1.17 | 2.34 | 4.69 | 1.46 | 2.64 | 1.02 | 2.05 | 0.59 | 2.20 | 1.61 | 0.15 | 0.59 |
| 22 | 2.99 | 2.58 | 1.86 | 1.37 | 4.52 | 1.37 | 0.40 | 0.48 | 8.23 | 8.31 | 0.89 | 1.69 | 2.42 | 4.68 | 2.82 | 0.40 | 1.05 | 0.48 | 0.89 | 1.29 | 0.32 | 0.00 |
| X | 3.88 | 2.15 | 5.31 | 1.67 | 11.28 | 1.79 | 1.85 | 0.66 | 7.10 | 18.39 | 2.15 | 3.82 | 5.19 | 4.06 | 3.10 | 1.13 | 0.60 | 0.78 | 1.97 | 2.15 | 0.42 | 0.42 |
| Y | 0.00 | 0.00 | 0.00 | 0.00 | 2.52 | 2.52 | 0.84 | 0.84 | 7.56 | 8.40 | 0.00 | 8.40 | 3.36 | 2.52 | 0.00 | 0.00 | 5.04 | 0.00 | 0.00 | 2.52 | 0.00 | 0.00 |

^aDown expressed. ^bOver expressed. ^c Percentage of chromosome participation