

## **ADDITIONAL DATA FILE 1**

**Supplemental Table 1.** Tissues, cDNA libraries, genes, ESTs, and poly(A) sites used in this study.

**Supplemental Table 2.** Poly(A) site usage of type II genes.

**Supplemental Table 3.** Poly(A) site usage of type III genes.

**Supplemental Table 4.** Usage of strong and weak poly(A) sites using 60% as cutoff.

**Supplemental Table 5.** Usage of strong and weak poly(A) sites using 75% as cutoff.

**Supplemental Table 6.** Usage of strong and weak poly(A) sites using 90% as cutoff.

**Supplemental Figure 1.** Schematic representation of three types of genes.

**Supplemental Figure 2.** Boxplots of mRNA expression levels of polyadenylation-related factors in brain tissues versus other tissues. (A) U95Av2 data. (B) U133A data. For each plot, values from brain tissues are on the left, and those from other tissues are on the right.

**Supplemental Figure 3.** Selection of hexamers in different poly(A) regions. (A) –100/-41, (B) –40/-1, (C) +1/+40, and (D) +41/+100. For each panel, a two-dimensional scatter-plot for  $z_{un}$  and  $z_{pc}$  is shown on the left, and clustering of hexamers is shown on the right. In each scatter-plot, x-axis is  $z_{un}$ , and y-axis is  $z_{pc}$ . Each dot represents a hexamer. Cutoffs of 2.5 were used for both  $z_{un}$  and  $z_{pc}$ , as indicated by vertical and horizontal lines, respectively. Hexamers in green are the ones with  $z_{sw} > 2.5$ . Hexamers in red are the selected ones for clustering. Sequence logos of *cis* elements are shown under corresponding hexamer groups.

**Supplemental Figure 4.** Multiple sequence alignments of PTB and nPTB (A), and CstfF-64 and  $\tau$ CstF-64 (B). Only the isoform a of PTB (NP\_002810) was used here. ClustalW was used to align protein sequences with default settings. Identical residues in the alignment are marked with asterisks “\*”; strongly and weakly conserved residues are marked with colons “:” and periods “.”, respectively. The protein sequence accessions for nPTB, CstfF-64 and  $\tau$ CstF-64 are NP\_067013, NP\_001316, and NP\_056050, respectively.

**Supplemental Table 1. Tissues, cDNA libraries, genes, ESTs, and poly(A) sites used in this study.**

| <b>Tissue</b>   | <b># of lib</b> | <b># of genes</b> | <b># of ESTs</b> | <b># of PA</b> |  |  |  |
|---|-----------------|-------------------|------------------|----------------|--|--|--|
| adipose   | 3               | 115               | 137              | 115            |  |  |  |
| adrenal cortex  | 2               | 269               | 321              | 273            |  |  |  |
| blood   | 28              | 747               | 1903             | 791            |  |  |  |
| bone  | 8               | 3944              | 11057            | 4454           |  |  |  |
| bone marrow   | 10              | 1337              | 3535             | 1410           |  |  |  |
| brain   | 48              | 2226              | 5717             | 2355           |  |  |  |
| cerebrum  | 13              | 251               | 321              | 253            |  |  |  |
| cervix  | 5               | 811               | 1372             | 833            |  |  |  |
| colon   | 50              | 1795              | 3039             | 1881           |  |  |  |
| ear   | 1               | 1213              | 2576             | 1283           |  |  |  |
| endocrine   | 5               | 569               | 875              | 580            |  |  |  |
| esophagus   | 1               | 302               | 356              | 304            |  |  |  |
| eye   | 14              | 3626              | 8896             | 3989           |  |  |  |
| genitourinary   | 6               | 382               | 446              | 390            |  |  |  |
| germ cell   | 4               | 415               | 522              | 421            |  |  |  |
| head and neck   | 34              | 726               | 1205             | 740            |  |  |  |
| heart   | 7               | 46                | 64               | 47             |  |  |  |
| kidney  | 14              | 1533              | 2692             | 1605           |  |  |  |
| liver   | 13              | 1380              | 3617             | 1460           |  |  |  |
| lung  | 31              | 2859              | 8012             | 3068           |  |  |  |
| lymph/lymph node  | 8               | 1299              | 2425             | 1343           |  |  |  |
| mammary gland   | 37              | 507               | 1721             | 513            |  |  |  |
| muscle  | 7               | 1302              | 2474             | 1354           |  |  |  |
| nervous   | 9               | 276               | 315              | 282            |  |  |  |
| ovary   | 25              | 2035              | 5596             | 2133           |  |  |  |
| pancreas  | 13              | 2541              | 5566             | 2718           |  |  |  |
| pancreatic islet  | 6               | 2509              | 9769             | 2759           |  |  |  |
| peripheral nervous system   | 6               | 984               | 1276             | 1007           |  |  |  |
| pineal gland  | 2               | 154               | 185              | 155            |  |  |  |
| pituitary gland   | 5               | 157               | 259              | 158            |  |  |  |
| placenta  | 28              | 3690              | 8539             | 4092           |  |  |  |
| prostate  | 32              | 2044              | 5505             | 2183           |  |  |  |
| retina  | 10              | 3117              | 5697             | 3367           |  |  |  |
| skin  | 17              | 2280              | 6753             | 2436           |  |  |  |
| soft tissue   | 5               | 537               | 681              | 545            |  |  |  |
| spleen  | 3               | 263               | 415              | 267            |  |  |  |
| stomach   | 34              | 2569              | 5284             | 2736           |  |  |  |
| testis  | 11              | 1168              | 1854             | 1218           |  |  |  |
| thymus  | 1               | 18                | 18               | 18             |  |  |  |
| thyroid   | 30              | 387               | 558              | 394            |  |  |  |
| uterus  | 16              | 4253              | 10844            | 4775           |  |  |  |
| vascular  | 7               | 356               | 548              | 363            |  |  |  |
|   |                 |                   |                  |                |  |  |  |
| <b># of lib: number of non-normalized libraries</b>                             |                 |                   |                  |                |  |  |  |
| <b># of genes: number of genes studied</b>                                      |                 |                   |                  |                |  |  |  |
| <b># of ESTs: number of poly(A/T)-tailed ESTs from non-normalized libraries</b> |                 |                   |                  |                |  |  |  |
| <b># of PA: number of poly(A) sites</b>   |                 |                   |                  |                |  |  |  |

**Supplemental Table 2. Poly(A) site usage of type II genes.**

| Tissue   | # of genes | # of ESTs | Vf     | Vm     | VI     | Pf   | Pm   | PI   | Df    | Dm    | DI    | Pval     |
|--|------------|-----------|--------|--------|--------|------|------|------|-------|-------|-------|----------|
| adipose  | 48         | 59        | 19     | 9      | 20     | 0.40 | 0.19 | 0.42 | 0.19  | -0.07 | -0.11 | 6.31E-01 |
| adrenal cortex   | 108        | 123       | 29.5   | 25     | 53.5   | 0.27 | 0.23 | 0.50 | -0.18 | 0.15  | 0.06  | 4.16E-01 |
| blood  | 267        | 797       | 120.39 | 52.46  | 94.15  | 0.45 | 0.20 | 0.35 | 0.36  | -0.03 | -0.25 | 6.99E-05 |
| bone   | 1476       | 4404      | 464.85 | 296.12 | 715.03 | 0.31 | 0.20 | 0.48 | -0.05 | -0.01 | 0.03  | 3.62E-01 |
| bone marrow  | 554        | 1407      | 156    | 136.53 | 261.47 | 0.28 | 0.25 | 0.47 | -0.15 | 0.22  | 0.01  | 7.77E-03 |
| brain  | 794        | 1969      | 239.44 | 147.82 | 406.74 | 0.30 | 0.19 | 0.51 | -0.09 | -0.08 | 0.09  | 4.26E-02 |
| cerebrum   | 96         | 116       | 21.5   | 19.5   | 55     | 0.22 | 0.20 | 0.57 | -0.33 | 0.01  | 0.22  | 6.16E-02 |
| cervix   | 317        | 498       | 109.47 | 73.58  | 133.95 | 0.35 | 0.23 | 0.42 | 0.04  | 0.15  | -0.10 | 2.14E-01 |
| colon  | 689        | 1122      | 233.52 | 120.2  | 335.28 | 0.34 | 0.17 | 0.49 | 0.02  | -0.14 | 0.04  | 2.12E-01 |
| ear  | 534        | 1272      | 129.33 | 134.22 | 270.45 | 0.24 | 0.25 | 0.51 | -0.27 | 0.25  | 0.08  | 2.70E-05 |
| endocrine  | 234        | 337       | 79.27  | 42.23  | 112.5  | 0.34 | 0.18 | 0.48 | 0.02  | -0.11 | 0.02  | 7.31E-01 |
| esophagus  | 91         | 110       | 28     | 24     | 39     | 0.31 | 0.26 | 0.43 | -0.07 | 0.31  | -0.09 | 3.31E-01 |
| eye  | 1285       | 3207      | 444.93 | 264.81 | 575.26 | 0.35 | 0.21 | 0.45 | 0.04  | 0.02  | -0.05 | 3.37E-01 |
| genitourinary  | 159        | 188       | 50.83  | 41     | 67.17  | 0.32 | 0.26 | 0.42 | -0.04 | 0.28  | -0.10 | 1.93E-01 |
| germ cell  | 144        | 188       | 55.45  | 24.75  | 63.8   | 0.39 | 0.17 | 0.44 | 0.16  | -0.15 | -0.06 | 3.55E-01 |
| head and neck  | 276        | 451       | 94.75  | 52.33  | 128.92 | 0.34 | 0.19 | 0.47 | 0.03  | -0.06 | 0.00  | 8.55E-01 |
| heart  | 13         | 14        | 6      | 0      | 7      | 0.46 | 0.00 | 0.54 | 0.39  | -1.00 | 0.15  | 1.82E-01 |
| kidney   | 581        | 1003      | 181.81 | 112.83 | 286.36 | 0.31 | 0.19 | 0.49 | -0.06 | -0.04 | 0.05  | 4.73E-01 |
| liver  | 510        | 1287      | 179.63 | 108.86 | 221.51 | 0.35 | 0.21 | 0.43 | 0.06  | 0.06  | -0.07 | 3.18E-01 |
| lung   | 995        | 2705      | 349.04 | 186.12 | 459.84 | 0.35 | 0.19 | 0.46 | 0.06  | -0.07 | -0.02 | 3.26E-01 |
| lymph node   | 505        | 958       | 167.09 | 116.3  | 221.61 | 0.33 | 0.23 | 0.44 | 0.00  | 0.14  | -0.07 | 2.20E-01 |
| mammary gland  | 188        | 549       | 59.59  | 36     | 92.41  | 0.32 | 0.19 | 0.49 | -0.05 | -0.05 | 0.05  | 8.08E-01 |
| muscle   | 484        | 877       | 155.1  | 98.34  | 230.57 | 0.32 | 0.20 | 0.48 | -0.04 | 0.01  | 0.01  | 8.81E-01 |
| nervous  | 116        | 137       | 23.67  | 30.33  | 62     | 0.20 | 0.26 | 0.53 | -0.39 | 0.30  | 0.14  | 1.22E-02 |
| ovary  | 754        | 1987      | 290.11 | 160.77 | 303.12 | 0.38 | 0.21 | 0.40 | 0.16  | 0.06  | -0.14 | 8.83E-04 |
| pancreas   | 950        | 2226      | 293.09 | 199.88 | 457.03 | 0.31 | 0.21 | 0.48 | -0.07 | 0.04  | 0.02  | 3.31E-01 |
| pancreatic islet   | 1003       | 3765      | 275.13 | 216.25 | 511.61 | 0.27 | 0.22 | 0.51 | -0.17 | 0.07  | 0.09  | 6.87E-04 |
| peripheral nervous system  | 353        | 444       | 112.33 | 67     | 173.67 | 0.32 | 0.19 | 0.49 | -0.04 | -0.06 | 0.05  | 6.56E-01 |
| pineal gland   | 58         | 74        | 20.5   | 11.5   | 26     | 0.35 | 0.20 | 0.45 | 0.06  | -0.02 | -0.04 | 9.33E-01 |
| pituitary gland  | 57         | 82        | 20     | 14     | 23     | 0.35 | 0.25 | 0.40 | 0.06  | 0.22  | -0.14 | 5.69E-01 |
| placenta   | 1428       | 3066      | 511.66 | 315.95 | 600.39 | 0.36 | 0.22 | 0.42 | 0.08  | 0.10  | -0.10 | 1.59E-03 |
| prostate   | 808        | 2069      | 267.26 | 167.68 | 373.06 | 0.33 | 0.21 | 0.46 | 0.00  | 0.03  | -0.02 | 8.90E-01 |
| retina   | 1106       | 2021      | 419.34 | 213.41 | 473.26 | 0.38 | 0.19 | 0.43 | 0.14  | -0.04 | -0.09 | 2.66E-03 |
| skin   | 852        | 2396      | 286.6  | 166.91 | 398.49 | 0.34 | 0.20 | 0.47 | 0.01  | -0.03 | 0.00  | 9.04E-01 |
| soft tissue  | 206        | 258       | 55.6   | 38.4   | 112    | 0.27 | 0.19 | 0.54 | -0.19 | -0.08 | 0.16  | 7.93E-02 |
| spleen   | 82         | 118       | 27.8   | 13.2   | 41     | 0.34 | 0.16 | 0.50 | 0.02  | -0.20 | 0.07  | 6.52E-01 |
| stomach  | 999        | 2137      | 325.36 | 195.85 | 477.78 | 0.33 | 0.20 | 0.48 | -0.02 | -0.03 | 0.02  | 7.95E-01 |
| testis   | 436        | 686       | 160.61 | 94.33  | 181.06 | 0.37 | 0.22 | 0.42 | 0.11  | 0.07  | -0.12 | 8.64E-02 |
| thymus   | 6          | 6         | 2      | 1      | 3      | 0.33 | 0.17 | 0.50 | 0.00  | -0.17 | 0.07  | 9.76E-01 |
| thyroid  | 162        | 214       | 52     | 34     | 76     | 0.32 | 0.21 | 0.47 | -0.03 | 0.04  | 0.00  | 9.46E-01 |
| uterus   | 1607       | 4300      | 487.28 | 365.07 | 754.65 | 0.30 | 0.23 | 0.47 | -0.09 | 0.13  | 0.00  | 1.04E-02 |
| vascular   | 156        | 221       | 61.2   | 30.5   | 64.3   | 0.39 | 0.20 | 0.41 | 0.18  | -0.03 | -0.12 | 2.44E-01 |
| <b># of genes: number of genes studied</b>   |            |           |        |        |        |      |      |      |       |       |       |          |
| <b># of ESTs: number of poly(A/T)-tailed ESTs from non-normalized libraries</b>                    |            |           |        |        |        |      |      |      |       |       |       |          |
| <b>Vf, Vm, and VI: votes for 2F, 2M, and 2L poly(A) sites, respectively</b>                        |            |           |        |        |        |      |      |      |       |       |       |          |
| <b>Pf, Pm, and PI: percent of usage of 2F, 2M, and 2L poly(A) sites, respectively</b>              |            |           |        |        |        |      |      |      |       |       |       |          |
| <b>Df, Dm, and DI: distance to the median usage for 2F, 2M, and 2L poly(A) sites, respectively</b> |            |           |        |        |        |      |      |      |       |       |       |          |
| <b>Pval: p-value from Chi-squared test</b>   |            |           |        |        |        |      |      |      |       |       |       |          |



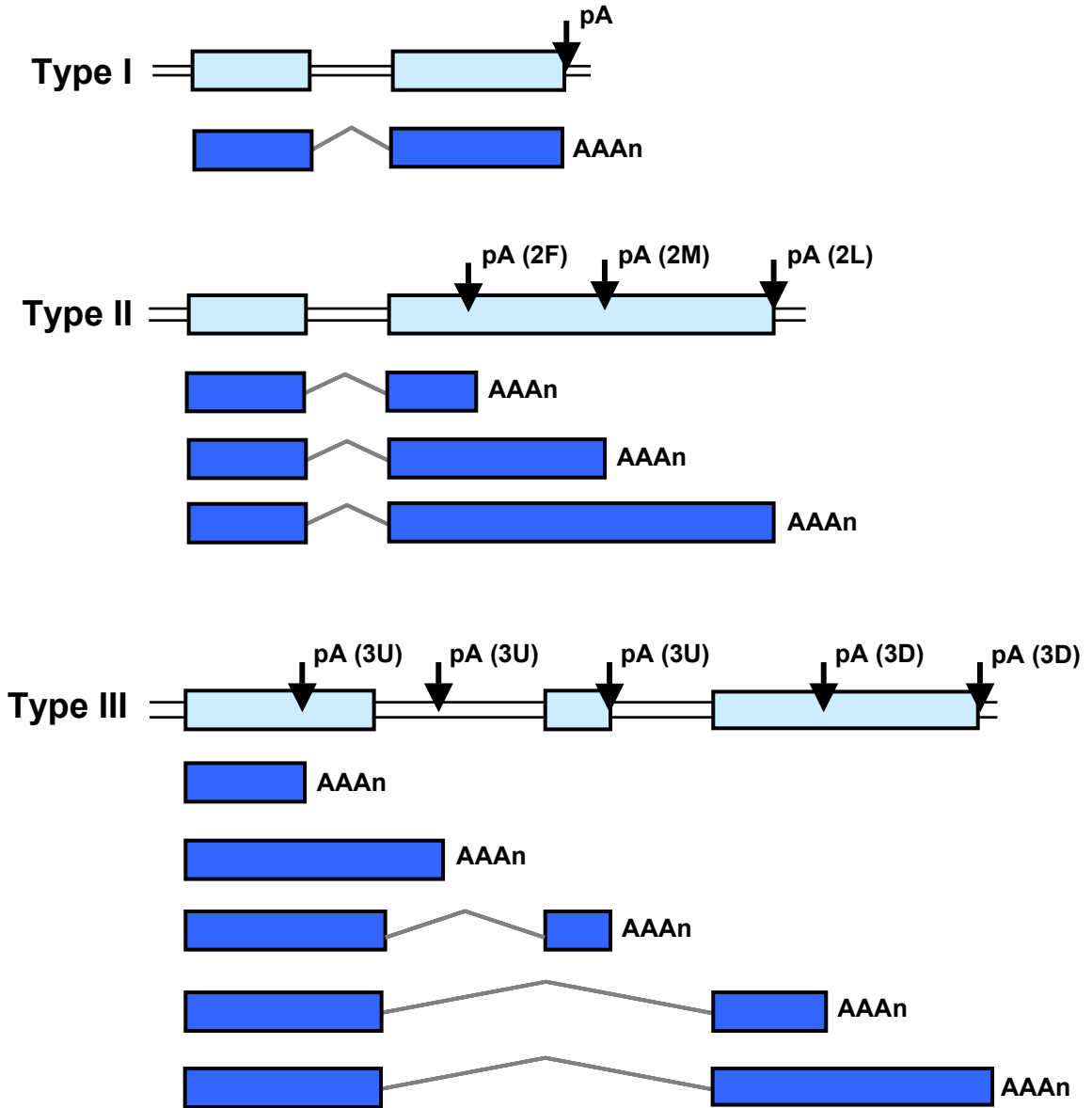
**Supplemental Table 4. Usage of strong and weak poly(A) sites using 60% as cutoff**

| <b>Tissue</b>  | <b># of genes</b> | <b># of ESTs</b> | <b>Vs</b> | <b>Vw</b> | <b>Ps</b> | <b>Pw</b> | <b>Ds</b> | <b>Dw</b> | <b>Pval</b> |
|--|-------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| adipose  | 38                | 48               | 34.00     | 4.00      | 0.89      | 0.11      | 0.07      | -0.36     | 3.23E-01    |
| adrenal cortex   | 90                | 110              | 78.00     | 12.00     | 0.87      | 0.13      | 0.04      | -0.19     | 4.22E-01    |
| blood  | 226               | 589              | 185.03    | 40.97     | 0.82      | 0.18      | -0.02     | 0.10      | 5.02E-01    |
| bone   | 1019              | 4195             | 829.78    | 189.22    | 0.81      | 0.19      | -0.03     | 0.13      | 7.08E-02    |
| bone marrow  | 461               | 1516             | 397.09    | 63.91     | 0.86      | 0.14      | 0.03      | -0.16     | 1.31E-01    |
| brain  | 582               | 1733             | 479.79    | 102.21    | 0.82      | 0.18      | -0.01     | 0.07      | 4.78E-01    |
| cerebrum   | 93                | 112              | 77.00     | 16.00     | 0.83      | 0.17      | -0.01     | 0.04      | 8.49E-01    |
| cervix   | 251               | 487              | 214.15    | 36.85     | 0.85      | 0.15      | 0.02      | -0.11     | 4.45E-01    |
| colon  | 522               | 1005             | 433.76    | 88.24     | 0.83      | 0.17      | -0.01     | 0.03      | 7.89E-01    |
| ear  | 433               | 1130             | 363.49    | 69.51     | 0.84      | 0.16      | 0.00      | -0.03     | 8.15E-01    |
| endocrine  | 199               | 299              | 171.17    | 27.83     | 0.86      | 0.14      | 0.03      | -0.15     | 3.45E-01    |
| esophagus  | 77                | 96               | 61.17     | 15.83     | 0.79      | 0.21      | -0.05     | 0.25      | 3.33E-01    |
| eye  | 898               | 2756             | 671.49    | 226.51    | 0.75      | 0.25      | -0.10     | 0.53      | 1.52E-12    |
| genitourinary  | 112               | 146              | 98.97     | 13.03     | 0.88      | 0.12      | 0.06      | -0.29     | 1.68E-01    |
| germ cell  | 138               | 201              | 121.30    | 16.70     | 0.88      | 0.12      | 0.05      | -0.27     | 1.66E-01    |
| head and neck  | 227               | 417              | 192.75    | 34.25     | 0.85      | 0.15      | 0.02      | -0.08     | 5.75E-01    |
| heart  | 16                | 18               | 13.00     | 3.00      | 0.81      | 0.19      | -0.03     | 0.14      | 8.06E-01    |
| kidney   | 444               | 888              | 368.80    | 75.20     | 0.83      | 0.17      | -0.01     | 0.03      | 7.91E-01    |
| liver  | 407               | 1387             | 336.78    | 70.22     | 0.83      | 0.17      | -0.01     | 0.05      | 6.70E-01    |
| lung   | 742               | 2561             | 619.08    | 122.92    | 0.83      | 0.17      | 0.00      | 0.01      | 9.44E-01    |
| lymph node   | 384               | 863              | 313.17    | 70.83     | 0.82      | 0.18      | -0.02     | 0.12      | 2.97E-01    |
| mammary gland  | 167               | 343              | 143.83    | 23.17     | 0.86      | 0.14      | 0.03      | -0.16     | 3.66E-01    |
| muscle   | 349               | 760              | 290.98    | 58.02     | 0.83      | 0.17      | 0.00      | 0.01      | 9.38E-01    |
| nervous  | 87                | 110              | 75.17     | 11.83     | 0.86      | 0.14      | 0.03      | -0.17     | 4.70E-01    |
| ovary  | 535               | 1476             | 445.82    | 89.18     | 0.83      | 0.17      | 0.00      | 0.01      | 9.01E-01    |
| pancreas   | 707               | 1955             | 603.82    | 103.18    | 0.85      | 0.15      | 0.02      | -0.11     | 1.79E-01    |
| pancreatic islet   | 694               | 3437             | 571.21    | 122.79    | 0.82      | 0.18      | -0.01     | 0.07      | 3.85E-01    |
| peripheral nervous system  | 286               | 403              | 239.17    | 46.83     | 0.84      | 0.16      | 0.00      | -0.01     | 9.65E-01    |
| pineal gland   | 46                | 64               | 41.00     | 5.00      | 0.89      | 0.11      | 0.07      | -0.34     | 3.06E-01    |
| pituitary gland  | 56                | 76               | 45.67     | 10.33     | 0.82      | 0.18      | -0.02     | 0.12      | 6.90E-01    |
| placenta   | 913               | 2224             | 688.29    | 224.71    | 0.75      | 0.25      | -0.10     | 0.49      | 3.29E-11    |
| prostate   | 601               | 2015             | 506.66    | 94.34     | 0.84      | 0.16      | 0.01      | -0.05     | 6.09E-01    |
| retina   | 700               | 1426             | 478.71    | 221.29    | 0.68      | 0.32      | -0.18     | 0.92      | 3.38E-27    |
| skin   | 645               | 2354             | 526.08    | 118.92    | 0.82      | 0.18      | -0.02     | 0.12      | 1.78E-01    |
| soft tissue  | 172               | 234              | 147.42    | 24.58     | 0.86      | 0.14      | 0.03      | -0.13     | 4.41E-01    |
| spleen   | 81                | 126              | 71.13     | 9.87      | 0.88      | 0.12      | 0.05      | -0.26     | 2.98E-01    |
| stomach  | 706               | 1798             | 592.65    | 113.35    | 0.84      | 0.16      | 0.00      | -0.03     | 7.66E-01    |
| testis   | 339               | 658              | 272.58    | 66.42     | 0.80      | 0.20      | -0.04     | 0.19      | 1.21E-01    |
| thymus   | 6                 | 6                | 6.00      | 0.00      | 1.00      | 0.00      | 0.20      | -1.00     | 2.77E-01    |
| thyroid  | 132               | 186              | 111.25    | 20.75     | 0.84      | 0.16      | 0.01      | -0.05     | 8.16E-01    |
| uterus   | 1062              | 3835             | 848.95    | 213.05    | 0.80      | 0.20      | -0.04     | 0.22      | 1.60E-03    |
| vascular   | 144               | 230              | 128.52    | 15.48     | 0.89      | 0.11      | 0.07      | -0.35     | 6.42E-02    |
| <b># of genes: number of genes studied</b>   |                   |                  |           |           |           |           |           |           |             |
| <b># of ESTs: number of poly(A/T)-tailed ESTs from non-normalized libraries</b>                |                   |                  |           |           |           |           |           |           |             |
| <b>Vs and Vw: votes for strong and weak poly(A) sites, respectively</b>                        |                   |                  |           |           |           |           |           |           |             |
| <b>Ps and Pw: percent of usage of strong and weak poly(A) sites, respectively</b>              |                   |                  |           |           |           |           |           |           |             |
| <b>Ds and Dw, distance to the median usage for strong and weak poly(A) sites, respectively</b> |                   |                  |           |           |           |           |           |           |             |
| <b>Pval: p-value from Chi-squared test</b>   |                   |                  |           |           |           |           |           |           |             |



| <b>Supplemental Table 6. Usage of strong and weak poly(A) sites using 90% as cutoff</b>        |                   |                  |           |           |           |           |           |           |             |
|--|-------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| <b>Tissue</b>  | <b># of genes</b> | <b># of ESTs</b> | <b>Vs</b> | <b>Vw</b> | <b>Ps</b> | <b>Pw</b> | <b>Ds</b> | <b>Dw</b> | <b>Pval</b> |
| adipose  | 19                | 27               | 19.00     | 0.00      | 1.00      | 0.00      | 0.04      | -1.00     | 3.60E-01    |
| adrenal cortex   | 36                | 49               | 34.50     | 1.50      | 0.96      | 0.04      | 0.00      | -0.01     | 9.88E-01    |
| blood  | 91                | 379              | 86.31     | 4.69      | 0.95      | 0.05      | -0.01     | 0.22      | 6.56E-01    |
| bone   | 225               | 2143             | 215.40    | 9.60      | 0.96      | 0.04      | 0.00      | 0.01      | 9.70E-01    |
| bone marrow  | 135               | 914              | 130.98    | 4.02      | 0.97      | 0.03      | 0.01      | -0.29     | 4.74E-01    |
| brain  | 167               | 966              | 160.25    | 6.75      | 0.96      | 0.04      | 0.00      | -0.04     | 9.11E-01    |
| cerebrum   | 28                | 40               | 28.00     | 0.00      | 1.00      | 0.00      | 0.04      | -1.00     | 2.67E-01    |
| cervix   | 92                | 266              | 89.05     | 2.95      | 0.97      | 0.03      | 0.01      | -0.24     | 6.30E-01    |
| colon  | 142               | 445              | 136.88    | 5.12      | 0.96      | 0.04      | 0.01      | -0.14     | 7.17E-01    |
| ear  | 112               | 527              | 110.39    | 1.61      | 0.99      | 0.01      | 0.03      | -0.66     | 1.43E-01    |
| endocrine  | 88                | 148              | 84.00     | 4.00      | 0.95      | 0.05      | 0.00      | 0.08      | 8.78E-01    |
| esophagus  | 28                | 39               | 25.00     | 3.00      | 0.89      | 0.11      | -0.07     | 1.54      | 8.71E-02    |
| eye  | 196               | 1118             | 176.39    | 19.61     | 0.90      | 0.10      | -0.06     | 1.37      | 5.52E-05    |
| genitourinary  | 43                | 63               | 40.50     | 2.50      | 0.94      | 0.06      | -0.02     | 0.38      | 6.02E-01    |
| germ cell  | 60                | 112              | 58.55     | 1.45      | 0.98      | 0.02      | 0.02      | -0.43     | 4.88E-01    |
| head and neck  | 103               | 261              | 99.42     | 3.58      | 0.97      | 0.03      | 0.01      | -0.18     | 7.08E-01    |
| heart  | 8                 | 9                | 8.00      | 0.00      | 1.00      | 0.00      | 0.04      | -1.00     | 5.53E-01    |
| kidney   | 152               | 458              | 143.97    | 8.03      | 0.95      | 0.05      | -0.01     | 0.25      | 5.13E-01    |
| liver  | 139               | 815              | 131.03    | 7.97      | 0.94      | 0.06      | -0.02     | 0.36      | 3.73E-01    |
| lung   | 205               | 1435             | 194.64    | 10.36     | 0.95      | 0.05      | -0.01     | 0.20      | 5.51E-01    |
| lymph node   | 111               | 478              | 103.76    | 7.24      | 0.93      | 0.07      | -0.02     | 0.55      | 2.27E-01    |
| mammary gland  | 74                | 225              | 70.33     | 3.67      | 0.95      | 0.05      | -0.01     | 0.18      | 7.51E-01    |
| muscle   | 104               | 412              | 99.89     | 4.11      | 0.96      | 0.04      | 0.00      | -0.06     | 8.93E-01    |
| nervous  | 27                | 43               | 25.67     | 1.33      | 0.95      | 0.05      | -0.01     | 0.17      | 8.54E-01    |
| ovary  | 163               | 822              | 154.20    | 8.80      | 0.95      | 0.05      | -0.01     | 0.28      | 4.53E-01    |
| pancreas   | 185               | 1021             | 179.88    | 5.12      | 0.97      | 0.03      | 0.02      | -0.34     | 3.27E-01    |
| pancreatic islet   | 175               | 1835             | 165.67    | 9.33      | 0.95      | 0.05      | -0.01     | 0.26      | 4.63E-01    |
| peripheral nervous system  | 90                | 155              | 88.50     | 1.50      | 0.98      | 0.02      | 0.03      | -0.60     | 2.29E-01    |
| pineal gland   | 16                | 26               | 16.00     | 0.00      | 1.00      | 0.00      | 0.04      | -1.00     | 4.01E-01    |
| pituitary gland  | 26                | 40               | 24.00     | 2.00      | 0.92      | 0.08      | -0.04     | 0.82      | 3.78E-01    |
| placenta   | 197               | 725              | 182.42    | 14.58     | 0.93      | 0.07      | -0.03     | 0.76      | 2.62E-02    |
| prostate   | 176               | 1124             | 165.63    | 10.37     | 0.94      | 0.06      | -0.02     | 0.40      | 2.69E-01    |
| retina   | 128               | 322              | 111.19    | 16.81     | 0.87      | 0.13      | -0.09     | 2.11      | 5.18E-07    |
| skin   | 185               | 1411             | 177.40    | 7.60      | 0.96      | 0.04      | 0.00      | -0.03     | 9.41E-01    |
| soft tissue  | 69                | 105              | 65.67     | 3.33      | 0.95      | 0.05      | -0.01     | 0.14      | 8.01E-01    |
| spleen   | 40                | 75               | 38.80     | 1.20      | 0.97      | 0.03      | 0.01      | -0.29     | 7.02E-01    |
| stomach  | 174               | 824              | 167.85    | 6.15      | 0.96      | 0.04      | 0.01      | -0.16     | 6.54E-01    |
| testis   | 94                | 296              | 84.30     | 9.70      | 0.90      | 0.10      | -0.06     | 1.45      | 3.24E-03    |
| thymus   | 3                 | 3                | 3.00      | 0.00      | 1.00      | 0.00      | 0.04      | -1.00     | 7.16E-01    |
| thyroid  | 57                | 94               | 55.50     | 1.50      | 0.97      | 0.03      | 0.02      | -0.38     | 5.52E-01    |
| uterus   | 227               | 1724             | 213.62    | 13.38     | 0.94      | 0.06      | -0.02     | 0.40      | 2.09E-01    |
| vascular   | 69                | 132              | 68.00     | 1.00      | 0.99      | 0.01      | 0.03      | -0.66     | 2.53E-01    |
| <b># of genes: number of genes studied</b>   |                   |                  |           |           |           |           |           |           |             |
| <b># of ESTs: number of poly(A/T)-tailed ESTs from non-normalized libraries</b>                |                   |                  |           |           |           |           |           |           |             |
| <b>Vs and Vw: votes for strong and weak poly(A) sites, respectively</b>                        |                   |                  |           |           |           |           |           |           |             |
| <b>Ps and Pw: percent of usage of strong and weak poly(A) sites, respectively</b>              |                   |                  |           |           |           |           |           |           |             |
| <b>Ds and Dw, distance to the median usage for strong and weak poly(A) sites, respectively</b> |                   |                  |           |           |           |           |           |           |             |
| <b>Pval: p-value from Chi-squared test</b>   |                   |                  |           |           |           |           |           |           |             |

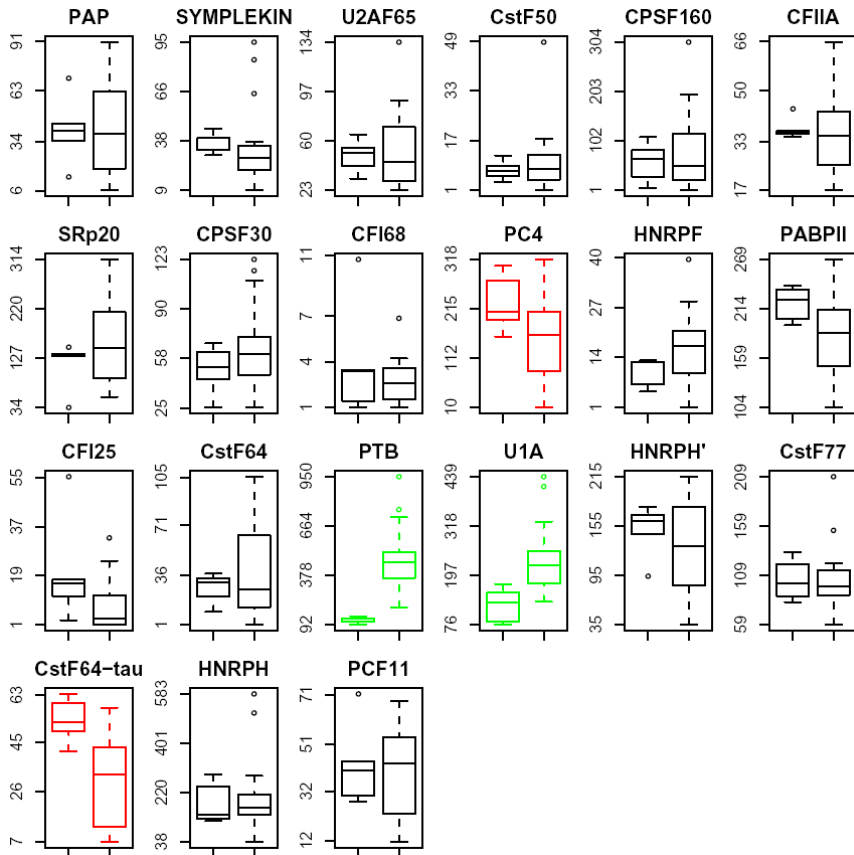
# Supplemental Figure 1.





# Supplemental Figure 2.

**A**



**B**

