

Supplemental Material

Analysis of the Human Immunodeficiency Virus-1 RNA Packageome

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Supplemental Table S1. Most abundant RNAs in HIV RNA-Seq

| Replicate 1 | | Replicate 2 | |
|--------------|---------|--------------|---------|
| RNA | TPM | RNA | TPM |
| 7SL | 755,390 | 7SL | 728,117 |
| HIV gRNA | 124,917 | HIV gRNA | 144,495 |
| AluY | 24,734 | 5.8S rRNA | 41,790 |
| 18S rRNA | 23,221 | 5S rRNA | 22,657 |
| AluS | 21,072 | 18S rRNA | 14,805 |
| 5S rRNA | 14,834 | AluY | 8,634 |
| 5.8S rRNA | 10,349 | 28S rRNA | 7,933 |
| U1 | 4,466 | U1 | 7,465 |
| 28S rRNA | 3,004 | AluS | 5,932 |
| LINE-1 H | 1,856 | snaR-A | 2,493 |
| tRNA-Lys-CTT | 1,412 | U6atac | 1,374 |
| U6 | 1,212 | vtRNA1-1 | 1,281 |
| AluJ | 1,139 | mt 16S rRNA | 1,175 |
| U2 | 1,035 | U6 | 843 |
| hY1 | 1,034 | mt 12S rRNA | 842 |
| tRNA-Cys-GCA | 938 | tRNA-Lys-CTT | 692 |
| hY3 | 915 | hY4 | 656 |
| tRNA-Ala-TGC | 839 | tRNA-Ala-AGC | 610 |
| tRNA-Val-TAC | 764 | tRNA-Leu-CAA | 544 |
| RPPH1 | 714 | tRNA-Ala-TGC | 473 |
| U5 | 702 | hY1 | 454 |
| 7SK | 655 | RPPH1 | 435 |
| U6atac | 643 | LINE-1 H | 430 |
| hY4 | 610 | tRNA-Val-TAC | 425 |
| snaR-A | 509 | AluJ | 413 |
| tRNA-Ile-AAT | 439 | U2 | 396 |
| tRNA-Asp-GTC | 306 | tRNA-Cys-GCA | 391 |
| tRNA-Tyr-GTA | 259 | tRNA-Ser-TGA | 374 |
| tRNA-Glu-CTC | 233 | 7SK | 328 |
| mt 12S rRNA | 231 | tRNA-Ser-GCT | 317 |
| mt 16S rRNA | 212 | tRNA-Tyr-GTA | 252 |
| vtRNA1-1 | 173 | tRNA-Tyr-GTA | 252 |
| tRNA-Gly-TCC | 144 | tRNA-Ala-CGC | 230 |
| tRNA-Gly-GCC | 132 | tRNA-Glu-TTC | 208 |
| tRNA-Pro-TGG | 125 | hY3 | 197 |
| tRNA-Gln-TTG | 108 | tRNA-Lys-TTT | 186 |
| tRNA-Ser-TGA | 104 | tRNA-Ile-AAT | 176 |
| tRNA-Sec-TCA | 97 | tRNA-His-GTG | 132 |
| tRNA-Asn-GTT | 91 | tRNA-Gly-CCC | 129 |
| tRNA-Val-CAC | 89 | tRNA-Gly-TCC | 123 |
| RNaseMRP | 83 | tRNA-Ile-TAT | 109 |
| tRNA-Ser-GCT | 58 | vtRNA2-1 | 107 |
| tRNA-Lys-TTT | 54 | U5 | 101 |

Table S2. Oligonucleotides used in this study

| Probes for Northern blotting (5' to 3') | |
|--|-------------------------------------|
| 7SL | TTTTGACCTGCTCCGTTTCCGACCT |
| tRNA-Lys-UUU | GACCCTCAGATTAAGTCTGATGCTC |
| hY1 | CTGACTGTGAACAATCAATTGAGATAACTCACTAC |
| hY3 | GAGTGGAGAAGGAACAAAGAAATCTG |
| hY4 | GGGTTGTATACCAACTTTAGTGACAC |
| hY5 | GGGAGACAATGTTAAATCAACTTAACAATAA |
| snaR-A | GACCCATGTGGACCAGGCTGGCCTCGAA |
| vtRNA1-1 | AACCCAGACAGGTTGCTTGT |
| U1 | GGATAAGCCTCGCCCTGGGAAA |
| U6 | CTTCTCTGTATCGTTCCAATTTTAGTATAT |
| 5S | CGAGATCGGGCGCGTTCAGGGTGGTATGGCCGT |
| tRNA-Cys-GCA | ATGCTCTACCACTGAGCTATA |
| tRNA-Ser-UGA | CGCAGCGAGCAGGGTTCGAA |
| tRNA-Tyr-GUA | GGAATCGAACCAGCGACCTAAG |
| tRNA-Ile-UAU intron | CATCACCCGCACATATACTGTTG |
| tRNA-Ile-UAU mature | CTCACAACCTCGGCATTATAAGTAC |
| tRNA-Leu-CAA intron | TCCCCACCGCGGAGGAAGCTTAG |
| tRNA-Leu-CAA mature | CATTGGAGACCAGAACTTGAGTCTG |
| Primers for RT-qPCR (5' to 3') | |
| actin forward | ATCAAGATCATTGCTCCTCCTGAG |
| actin reverse | CTGCTTGCTGATCCACATCTG |
| AluY forward | AGATCGAGACCATCCTGGCT |
| AluY reverse | GCCATTCTCCTGCCTCAGCCT |
| LINE-1 ORF1 forward | TCAAAGGAAAGCCCATCAGACTA |
| LINE-1 ORF1 reverse | TTGGCCCCACTCTCTTCT |
| divergent LINE forward | TCAGAAGTGGGGATCTATGGAGGAC |
| divergent LINE reverse | AGATGGTCCCTCAACACCACG |
| RNVU1-6 forward | AGGAGAGATACCCTGGTCACGAAG |
| RNVU1-6 3' reverse | GTTTCTGCAGCAAACAAAACCTATT |
| 5.8S forward | CTTAGCGGTGGATCACTCGG |
| 5.8S reverse | AGTGCGTTCGAAGTGTCGAT |
| 18S forward | GCTTAATTTGACTCAACACGGGA |
| 18S reverse | AGCTATCAATCTGTCAATCCTGTC |
| 28S forward | TTCACCAAGCGTTGGATTGTT |
| 28S reverse | TGTCTGAACCTGCGGTTCT |
| rDNA IGS forward | AGCATTGTAAAGGGTGCCTGG |
| rDNA IGS reverse | CGTCTCATCTGTGTGCTGGAGAA |
| 7SL forward | ATCGGGTGTCCGCACTAAG |
| 7SL reverse | CACCCCTCCTTAGGCAACCT |
| HIV gRNA forward | ACCCGGCCATAAAGCAAGAG |
| HIV gRNA reverse | GTGCCCTTCTTTGCCACAAT |
| U6 forward | ATATACTAAAATTGGAACGATAC |
| RNU6-8 3' reverse | CACACTGTTTCCTTAGTACTAATTAG |