###### **Supplementary File 11: Frequency and enrichment of top-5 dimers in shared and species-specific circRNA loci.**

**Supplementary File 11.** The total number of detected top-5 dimers in shared and species-specific circRNA loci as well as their enrichment after correction for co-occurrence in multiple RVCs (see **Material and Methods**) are shown. Loci were normalized by the number of detected genes in each category before calculating the enrichment of dimers in shared over species-specific loci. The number of parental genes in both categories is shown below the species name. For mouse, only the top-3 dimers, which are outside the 95% frequency quantile, are shown (see **Material and Methods**). For rhesus, the analysis could only be done on a subset of genes due to lifting uncertainties between the rheMac2 and the rheMac3 genome (see **Material and Methods**).

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| --- | --- | --- | --- | --- |
| **Species** | **Dimer** | **Shared loci** | **Species-specific loci** | **Enrichment** |
| **opossum***nshared = 224**nspecies-specific = 602* | SINE1\_Mdo+SINE1\_Mdo | 4,634 | 8,155 | 1.53 |
| MAR1a\_Mdo+MAR1a\_Mdo | 535 | 968 | 1.49 |
| MAR1a\_Mdo+MAR1b\_Mdo | 474 | 882 | 1.45 |
| SINE1\_Mdo+SINE1a\_Mdo | 371 | 659 | 1.51 |
| MAR1b\_Mdo+MAR1b\_Mdo | 154 | 276 | 1.50 |
| **mouse***nshared = 76**nspecies-specific = 213* | B1\_Mus1+B1\_Mus2 | 275 | 438 | 1.76 |
| B2\_Mm2+B2\_Mm2 | 268 | 334 | 2.25 |
| B1\_Mus1+B1\_Mus1 | 162 | 274 | 1.66 |
| **rat***nshared = 80**nspecies-specific = 260* | ID\_Rn1+ID\_Rn2 | 184 | 457 | 1.31 |
| BC1\_Rn+ID\_Rn2 | 113 | 248 | 1.49 |
| ID\_Rn1+ID\_Rn1 | 111 | 273 | 1.32 |
| BC1\_Rn+ID\_Rn1 | 108 | 273 | 1.29 |
| ID\_Rn2+ID\_Rn2 | 95 | 224 | 1.38 |
| **rhesus***nshared = 38**nspecies-specific = 86* | AluSx+AluSz | 33 | 38 | 1.99 |
| AluY+AluYRa1 | 32 | 37 | 1.93 |
| AluSx+AluYRa1 | 27 | 21 | 2.86 |
| AluSx+AluSx1 | 26 | 35 | 1.68 |
| AluSx1+AluSz | 26 | 32 | 1.81 |
| **human***nshared = 169**nspecies-specific = 811* | AluSx+AluSx1 | 278 | 980 | 1.36 |
| AluSx1+AluY | 274 | 883 | 1.49 |
| AluSx+AluY | 269 | 806 | 1.60 |
| AluSx1+AluSz | 259 | 958 | 1.30 |
| AluSx+AluSz | 257 | 941 | 1.31 |