**Table S1. *Anolis carolinensis* genome annotation version 2.2.1 in comparison with current annotations.**

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| --- | --- | --- | --- | --- |
| **Overview** | **ASU v2.2.1** | **ASU v2.1** | **NCBI** | **Ensembl 74** |
| Annotated genes  |  22,960  |  22,962  |  15,645  |  21,913  |
| Annotated transcript isoforms  |  65,670  |  59,373  |  16,533  |  22,494  |
| Annotated isoforms/gene |  2.86  |  2.59  |  1.06  |  1.03  |
| **Annotated Transcripts** |   |   |   |   |
| All transcript isoforms |  65,670  |  59,373  |  16,533  |  22,494  |
| Transcripts with start & stop codons |  59,514  |  53,401  |  14,667  |  11,503  |
| Transcripts missing start or stop codon |  6,156  |  5,972  |  1,866  |  10,991  |
| Single exon transcripts |  2,098  |  2,070  |  983  |  724  |
| Transcript N50 length |  5,325  |  5,355  |  2,364  |  2,094  |
| Average coding sequence length  |  2,010  |  1,964  |  1,701  |  1,353  |
| **Exons** |   |   |   |   |
| Total number of exons  |  234,269  |  229,204  |  156,742  |  179,549  |
| Exons with start codon |  32,256  |  29,677  |  13,512  |  12,488  |
| Exons without start or stop codon |  168,195  |  168,367  |  128,486  |  153,121  |
| Exons with stop codon |  32,419  |  29,727  |  13,779  |  13,225  |
| Exons/annotated transcript |  12.35  |  12.05  |  10.11  |  8.20  |
| Average exon length  |  170  |  170  |  170  |  166  |
| Total exon length  |  39,715,013  |  38,902,806  |  26,658,387  |  29,723,416  |
| **3' UTR** |   |   |   |   |
| Total transcripts with 3'UTR |  38,938  |  34,926  |  5,861  |  38,938  |
| Average length of transcripts with 3'UTR  |  1,086  |  1,168  |  456  |  866  |
| Total 3'UTR sequence length  |  42,269,162  |  40,798,794  |  2,674,388  |  15,251,066  |
| **5' UTR** |   |   |   |   |
| Total transcripts with 5'UTR |  52,377  |  46,782  |  6,168  |  16,285  |
| Average length of transcripts with 5'UTR |  244  |  244  |  86  |  232  |
| Total 5'UTR sequence length  |  12,774,153  |  11,422,626  |  527,454  |  3,776,492  |
| **Introns**  |   |   |   |   |
| Total number of introns |  192,478  |  192,418  |  141,362  |  160,644  |
| Average intron length |  4,520  |  4,525  |  4,463  |  3,445  |
| Total intron sequence length  |  869,951,095  |  870,771,088  |  630,937,171  |  553,391,127  |