**Table S6. TRIP candidate motif results for Dipteran species with retrotransposons or complex repeats as telomeres.**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Drosophila melanogaster*** | **Reads number** | **Repeat number** | **Repeat length**  |
| AAGAG | 6,295,175  | 96,606,062  | 483,030,310  |
| AACATAGAAT | 2,410,968  | 14,835,560  | 148,355,600  |
| AACAC | 938,079  | 16,202,933  | 81,014,665  |
| AAGAC | 728,058  | 11,148,482  | 55,742,410  |
| AAACAC | 203,630  | 2,891,793  | 17,350,758  |
| AAGAGAG | 198,888  | 1,749,390  | 12,245,730  |
| AAACACAACAC | 68,852  | 531,611  | 5,847,721  |
| AAGAT | 93,995  | 1,121,966  | 5,609,830  |
| AAAAG | 75,871  | 1,061,990  | 5,309,950  |
| AAGGC | 81,089  | 1,027,492  | 5,137,460  |
| AAGGAG | 51,503  | 765,474  | 4,592,844  |
| AACATAT | 37,506  | 518,080  | 3,626,560  |
| AATAG | 32,538  | 516,960  | 2,584,800  |
| ***Aedes albopictus*** | **Reads number** | **Repeat number** | **Repeat length**  |
| AAATCCAATCC | 381,458  | 2,842,810  | 31,270,910  |
| AAGATAG | 141,344  | 1,956,346  | 13,694,422  |
| AAGACAGAG | 112,239  | 1,077,426  | 9,696,834  |
| AAATCGAATCG | 73,861  | 615,611  | 6,771,721  |
| ACTAG | 72,338  | 1,187,906  | 5,939,530  |
| AAGAAGAC | 56,649  | 707,319  | 5,658,552  |
| AAAGC | 58,911  | 1,093,224  | 5,466,120  |
| AAAATTAAATT | 49,386  | 452,425  | 4,976,675  |
| AAGACTAG | 53,766  | 494,608  | 3,956,864  |
| AAAAGGTCTTTAGGCCG | 43,465  | 229,658  | 3,904,186  |
| AAAATT | 32,284  | 540,216  | 3,241,296  |
| AAGACCAG | 42,529  | 350,423  | 2,803,384  |
| AGAGC | 30,449  | 545,305  | 2,726,525  |
| AACAGACAG | 30,870  | 283,013  | 2,547,117  |
| ACTCT | 26,517  | 507,102  | 2,535,510  |
| AAACAAAT | 28,340  | 314,588  | 2,516,704  |
| AGAGATGAGATG | 33,598  | 188,373  | 2,260,476  |
| AGAGATG | 27,718  | 314,309  | 2,200,163  |
| AAGACAG | 22,552  | 297,278  | 2,080,946  |
| AAGGACTTCCTGGAGGAATCCCCG | 18,600  | 76,403  | 1,833,672  |