Supplementary Table 1: The codon usage for the 12 protein coding mitochondrial genes of both haplogroups.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Haplogroup A | | Haplogroup B | |  | Haplogroup A | | Haplogroup B | |
| Codon (Amino Acid) | **Count** | **RSCU** | **Count** | **RSCU** | **Codon (Amino Acid)** | **Count** | **RSCU** | **Count** | **RSCU** |
| UUU(F) | 383.9 | 1.87 | 387.1 | 1.89 | UAU(Y) | 177.2 | 1.74 | 179.9 | 1.76 |
| UUC(F) | 26.5 | 0.13 | 23.5 | 0.11 | UAC(Y) | 26.8 | 0.26 | 24.1 | 0.24 |
| UUA(L) | 269.3 | 3.17 | 271.5 | 3.19 | UAA(\*) | 8.9 | 1.49 | 9 | 1.5 |
| UUG(L) | 169.4 | 1.99 | 162.8 | 1.91 | UAG(\*) | 3.1 | 0.51 | 3 | 0.5 |
| CUU(L) | 37.9 | 0.45 | 37.2 | 0.44 | CAU(H) | 49.4 | 1.8 | 50.9 | 1.85 |
| CUC(L) | 2 | 0.02 | 3.3 | 0.04 | CAC(H) | 5.5 | 0.2 | 4.1 | 0.15 |
| CUA(L) | 19.8 | 0.23 | 19.5 | 0.23 | CAA(Q) | 15.9 | 1.18 | 14.9 | 1.11 |
| CUG(L) | 12 | 0.14 | 16.2 | 0.19 | CAG(Q) | 11.1 | 0.82 | 12.1 | 0.89 |
| AUU(I) | 141.4 | 1.55 | 139.8 | 1.55 | AAU(N) | 69.2 | 1.58 | 72.2 | 1.63 |
| AUC(I) | 12.5 | 0.14 | 12.7 | 0.14 | AAC(N) | 10.8 | 0.25 | 8.2 | 0.19 |
| AUA(I) | 119.3 | 1.31 | 117.8 | 1.31 | AAA(N) | 51.2 | 1.17 | 52.3 | 1.18 |
| AUG(M) | 98.8 | 1 | 98.7 | 1 | AAG(K) | 53.1 | 1 | 52.9 | 1 |
| GUU(V) | 190.6 | 2.17 | 191.7 | 2.17 | GAU(D) | 79 | 1.87 | 81.7 | 1.92 |
| GUC(V) | 11.5 | 0.13 | 12.8 | 0.15 | GAC(D) | 5.4 | 0.13 | 3.3 | 0.08 |
| GUA(V) | 72.2 | 0.82 | 66.5 | 0.75 | GAA(E) | 32.7 | 0.98 | 31.5 | 0.98 |
| GUG(V) | 76.7 | 0.87 | 82.3 | 0.93 | GAG(E) | 34.2 | 1.02 | 32.7 | 1.02 |
| UCU(S) | 104.5 | 2.42 | 104.7 | 2.42 | UGU(C) | 115.2 | 1.78 | 113.1 | 1.76 |
| UCC(S) | 8.4 | 0.19 | 7.9 | 0.18 | UGC(C) | 13.9 | 0.22 | 15.6 | 0.24 |
| UCA(S) | 38.1 | 0.88 | 39.2 | 0.91 | UGA(W) | 53.2 | 1.17 | 53.1 | 1.17 |
| UCG(S) | 19.2 | 0.44 | 18.1 | 0.42 | UGG(W) | 37.7 | 0.83 | 37.8 | 0.83 |
| CCU(P) | 38.2 | 2.09 | 39.6 | 2.17 | CGU(R) | 33.8 | 2.77 | 33.9 | 2.76 |
| CCC(P) | 4.6 | 0.25 | 4 | 0.22 | CGC(R) | 1.1 | 0.09 | 0.2 | 0.01 |
| CCA(P) | 23.8 | 1.3 | 22.8 | 1.25 | CGA(R) | 7.3 | 0.6 | 7.1 | 0.58 |
| CCG(P) | 6.4 | 0.35 | 6.6 | 0.36 | CGG(R) | 6.7 | 0.55 | 7.9 | 0.65 |
| ACU(T) | 67.2 | 2.46 | 66.7 | 2.45 | AGU(S) | 90.9 | 2.1 | 90.5 | 2.09 |
| ACC(T) | 4 | 0.15 | 4.5 | 0.17 | AGC(S) | 9.6 | 0.22 | 8.2 | 0.19 |
| ACA(T) | 25.6 | 0.94 | 26.8 | 0.98 | AGA(S) | 46.1 | 1.07 | 47.9 | 1.11 |
| ACG(T) | 12.5 | 0.46 | 10.8 | 0.4 | AGG(S) | 29.2 | 0.67 | 29.2 | 0.68 |
| GCU(A) | 47.5 | 2.32 | 48.7 | 2.35 | GGU(G) | 111.2 | 2.15 | 111.8 | 2.15 |
| GCC(A) | 5.5 | 0.27 | 4.8 | 0.23 | GGC(G) | 9.6 | 0.19 | 9.8 | 0.19 |
| GCA(A) | 20.8 | 1.02 | 21.4 | 1.03 | GGA(G) | 40.4 | 0.78 | 40.3 | 0.78 |
| GCG(A) | 8 | 0.39 | 8 | 0.39 | GGG(G) | 45.5 | 0.88 | 45.7 | 0.88 |

(\*) end codon

Supplementary Table 2: population indices of *Taenia hydatigena* haplogroups from China based on the *cox*1 mitochondrial gene sequences

|  |  |  |  |
| --- | --- | --- | --- |
|  | Haplogroup A | Haplogroup B | Overall |
| No. of isolates | 13 | 13 | 26 |
| No. of mutations | 48 | 26 | 76 |
| Parsimony informative sites | 21 | 13 | 43 |
| No. of haplotypes | 12 | 12 | 24 |
| Haplotype diversity (Hd) | 0.987 | 0.987 | 0.994 |
| Nucleotide diversity (π) | 0.00628 | 0.00451 | 0.00969 |
| Tajima’s D (*P-*value) | -1.5293 (0.026) | -0.5562 (0.262) | -0.737 (0.233) |
| Fu’s Fs (*P-*value) | -3.4685 (0.055) | -4.7718 (0.009) | -8.8249 (0.004) |
| FST (*P-*value) | 0.605 (0.000) | |  |

\*significant *P-*value (*P* < 0.05)