**Supplementary Table 3.** – List of genes in the chloroplast genome of *A. trifida*

|  |  |  |
| --- | --- | --- |
|  | Group of genes | Name of genes |
| Protein synthesis and DNA-replication | Transfer RNAs | *trn*A(UGC)b, C(GCA), D(GUC), E(UUC), fM(CAU), F(GAA), G(GCC)b,G(UCC), I(CAU), I(GAU)b, K(UUU)a, L(UAA)b, L(UAG), L(CAA), M(CAU), N(GUU), P(UGG), Q(CUG), R(ACG), R(UCU), S(GGA), S(UGA), T(GGU), T(UGU), V(UAC)b, V(GAC), W(CCA), Y(GUA) |
|  | Ribosomal RNAs | *rrn*23, 16, 5, 4.5 |
|  | Ribosomal protein small subunit | *rps*2, 3, 4, 7, 8, 11, 12b, c, 14, 15, 16b, 18, 19 |
|  | Ribosomal protein large subunit | *rpl*2b, 14, 16b, 20, 22, 23, 32, 33, 36 |
|  | Subunits of of RNA polymerase | *rpo*A, C1b, C2 |
| Photosynthesis | Photosystem I | *psa*A, B, C, I, J |
|  | Photosystem II | *psb*A, B, C, D, E, F, H, I, J, K, L, M, N, T, Z |
|  | Cytochrome b/f complex | *pet*A, Bb, Db, G, L, N |
|  | ATP synthase | *atp*A, B, E, Fb, H, I |
|  | NADH-dehydrogenase | *ndh*Ab, Bb, C, D, E, F, G, H, I, J, K |
|  | Large subunit Rubisco | *rbc*L |
| Miscellaneous group | Translation initiation factor IF-1 | infAd |
|  | Acetyl-CoA carboxylase | *acc*D |
|  | Cytochrome c biogenesis | *ccs*A |
|  | Maturase | *mat*K |
|  | ATP-dependent protease | *clp*Pa |
|  | Inner membrane protein | *cem*A |
|  |  |  |
|  | Assembly of the photosystem I | *ycf*3a, *ycf*4 |
| Unknown function | Conserved hypothetical chloroplast ORF | *ycf*1d,\*, *ycf*2, *ycf*15d,\* |

aGene containing two introns; bGene containing a single intron; cGene divided into two independent transcription units; dPseudogene