**Table S2 –** List ofgenes found in the plastid genomes of *Nicotiana knightiana, N. rustica, N. paniculata, N. obtusifolia* and *N. glauca.* Bolded genes were used in phylogenetic analysis.

|  |  |  |
| --- | --- | --- |
| **Category****for gene** | **Group of gene** | **Name of gene** |
| **Photosynthesis-related genes** | Photosystem Ⅰ | ***psaA*** | ***psaB*** | ***psaC*** | ***psaI*** | ***psaJ*** |
| Photosystem Ⅱ | ***psbA*** | ***PsbB*** | ***psbC*** | ***psbD*** | ***psbE*** |
| ***psbF*** | ***psbH*** | ***psbI*** | ***psbJ*** | ***psbK*** |
| ***psbL*** | ***psbM*** | ***psbN*** |  |  |
| Cytochromeb/f compelx | ***psbT*** | ***psbZ*** | ***petN*** | ***petA*** | ***petL*** |
| ***petG*** | ***petD\**** | ***petB\**** |  |  |
| ATP synthase | ***atpI*** | ***atpH*** | ***atpA*** | ***atpF\**** | ***atpE*** |
| ***atpB*** |  |  |  |  |
| Cytochromec synthesis | ***ccsA*** |  |  |  |  |
| Assembly/stabilityof photosystem Ⅰ | ***ycf3****\*\** | ***ycf4*** |  |  |  |
| NADPH dehydrogenase | ***ndhB\*,a,*** | ***ndhH*** | ***ndhA\**** | ***ndhI*** | ***ndhG*** |
| ***ndhJ*** | ***ndhE*** | ***ndhF*** | ***ndhC*** | ***ndhK*** |
| ***ndhD*** |  |  |  |  |
| Rubisco | ***rbcL*** |  |  |  |  |
| **Transcription****and translation****related genes****RNA genes** | TranscriptionSmall subunitof ribosome | ***rpoA*** | ***rpoC2*** | ***rpoC1\**** | ***rpoB*** | ***rps16\**** |
| ***rps7a,*** | ***rps15*** | ***rps19*** | ***rps3*** | ***rps8*** |
| ***rps14*** | ***rps11*** | ***rps12a,\**** | ***rps18*** | ***rps4*** |
| ***rps2*** |  |  |  |  |
| Large subunitof ribosome | ***rpl2a,\**** | ***rpl23a,*** | ***rpl32*** | ***rpl22*** | ***rpl14*** |
| ***rpl33*** | ***rpl36*** | ***rpl20*** | ***rpl16\**** |  |
| Translational initiation factor | *infA* |  |  |  |  |
| Ribosomal RNA | *rrn16a,* | *rrn4.5a,* | *rrn5 a,* | *rrn23a* |  |
| Transfer RNA | *trnV-GACa* | *. trnI-CAU,\** | *trnA-UGCa,\** | *trnN-GUUa* | *trnP-UGG* |
| *trnW-CCA,* | *trnV-UAC\** | *trnL-UAA\** | *trnF-GAA* | *trnRACGa* |
| *trnT-UGU* | *trnG-UCCa,,\*,* | *trnT-GGU* | *trnR-UCU* | *trnE-UUC* |
| *trnY-GUA* | *trnD-GUC* | *trnC-GCA* | *trnS-GCU* | *trnH-GUG* |
| *trnK-UUU* | *trnQ-UUG* | *trnfM-CAU* | *trnG-GCC* | *trnS -UGA* |
| *trnS -GGA* | *trnF-GAA* | *trnM-CAU* | *trnL-CAA\** |  |
| *trnI-GAU\*,a* | *trnL -UAG* |  |  |  |
| **Other genes** | RNA processing | ***matK*** |  |  |  |  |
| Carbon metabolism | ***cemA*** |  |  |  |  |
| Fatty acid synthesis | *accD* |  |  |  |  |
| Proteolysis | ***clpP****\*\** |  |  |  |  |
| Component of TIC complex | *ycf1a* |  |  |  |  |
| Hypothetical proteins | *ycf2a*  |  |  |  |  |

\* Gene with one intron, \*\* Gene with two introns, **a** Gene with two copies, Same genes in all *Nicotiana* species.