**Table S2**. Primers used for amplification and sequencing

|  |  |  |
| --- | --- | --- |
| Regions | Successful primers and their sequences (5’-3’) | References |
| *mat*K | 3F\_KIM | TAATGAGAAAGATTTCTGCATATACG | Schroeder et al. 2012 [1] |
| 1R\_KIM | TTTACGATCAATTCATTCAATATTTCC | Schroeder et al. 2012 [1] |
| *psb*A*-trn*H | trnH2 | CGCGCATGGTGGATTCACAATCC | Tate & Simpson 2003 [2] |
| psbAF | GTTATGCATGAACGTAATGCTC | Sang et al. 1997 [3] |
| *rbc*L | F | ATGTCACCACAAACAGAGACT | This study |
| R | CCGAATTGTAGTACGGAATC | This study |
| *trn*G-*psb*K | 3a | GAAGGATTCGAACCTCCGAATG | Schroeder et al. 2011 [1] |
| 3b | CTGGCATAACATCTACGATTGG | Schroeder et al. 2011 [1] |
| *psb*K-*psb*I | 4a | CCAATCGTAGATGTTATGCCAG | Schroeder et al. 2011 [1] |
| 4b | GGATTACGCCCTGGATCATTAG | Schroeder et al. 2011 [1] |
| ITS | PopF1a | ACCTGCCTAGCAGAACGAC | This study |
| PopF2a | AAGGATCATTGTCGARACCTG | This study |
| ITS 4 | TCCTCCGCTTATTGATATGC | White et al. 1990 [4] |

**References:**

1. Schroeder H, Hoeltken AM, Fladung M (2012) Differentiation of Populus species using chloroplast single nucleotide polymorphism (SNP) markers–essential for comprehensible and reliable poplar breeding. Plant Biol (Stuttg) 14: 374-381.

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3. Sang T, Crawford DJ, Stuessy TF (1997) Chloroplast DNA phylogeny, reticulate evolution, and biogeography of *Paeonia* (Paeoniaceae). Am J Bot 84: 1120-1136.

4. White TJ, Burns T, Lee S, Taylor J (1990) Amplification and direct sequencing of fungal ribosomal RNA genes for phylogenetics. In: Innis M, Gelfand D, Sninsky J, White T, editors. PCR protocols: a guide to methods and applications. San Diego: Academic Press. pp. 315-322.