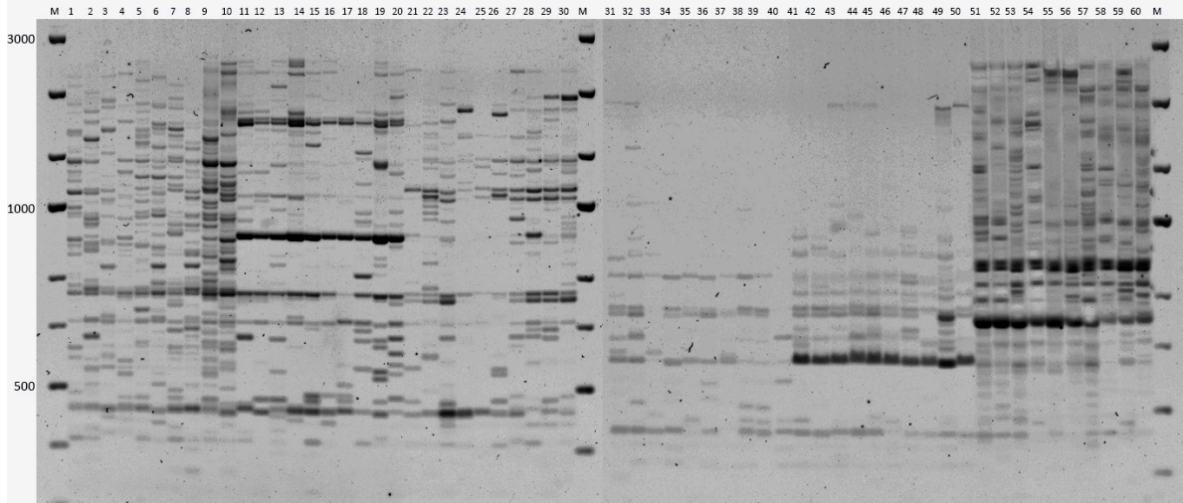
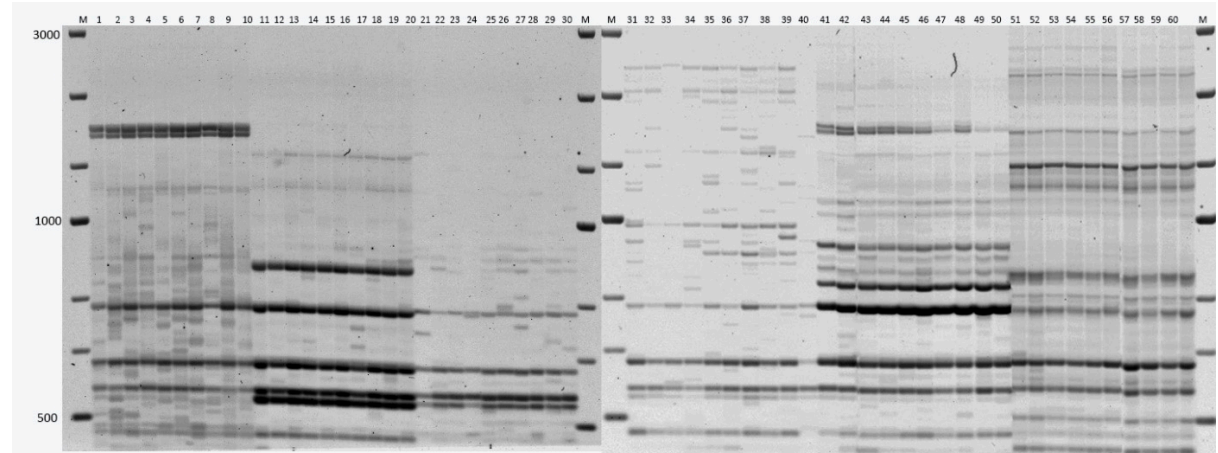


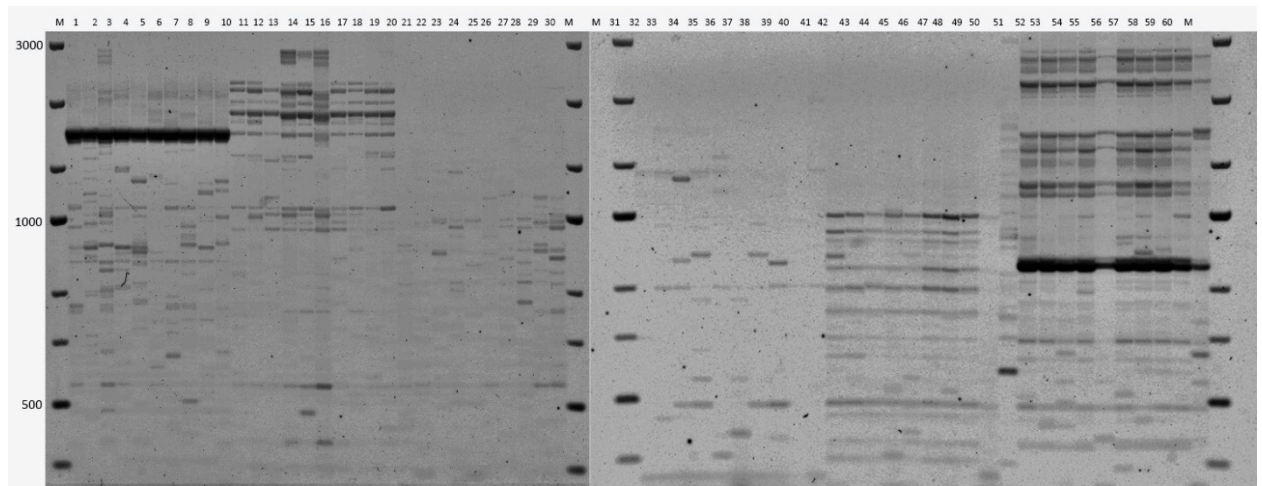
(A)



(B)



(C)



(D)

Figure S1. Electrophoretic pattern of EPIC-PCR for *Rhodiola* species using pairs of primers to conserved regions of genes SOD: (A) pair (5069-5073): 1-10: *R. quadrifida*; 11-20: *R. rosea* (KZ); 21-30: *R. rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*; (B) pair (5069-5075): 1-10: *R. quadrifida*; 11-20: *R. rosea* (KZ); 21-30: *R. rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*; (C) pair (5070-5073): 25-26: *R. rosea* (RU); 27-28: *R. semenovii*; 29-30: *R. rosea* (KZ); 31-32: *R. quadrifida*; 33-34: *R. linearifolia*; 35-36: *R. algida*; (D) pair (5071-5073): 35-36: *R. rosea* (RU); 37-38: *R. semenovii*; 39-40: *R. rosea* (KZ); 41-42: *R. quadrifida*; 43-44: *R. linearifolia*; 45-46: *R. algida*. M - Thermo Scientific GeneRuler DNA Ladder Mix (100-10,000 bp).

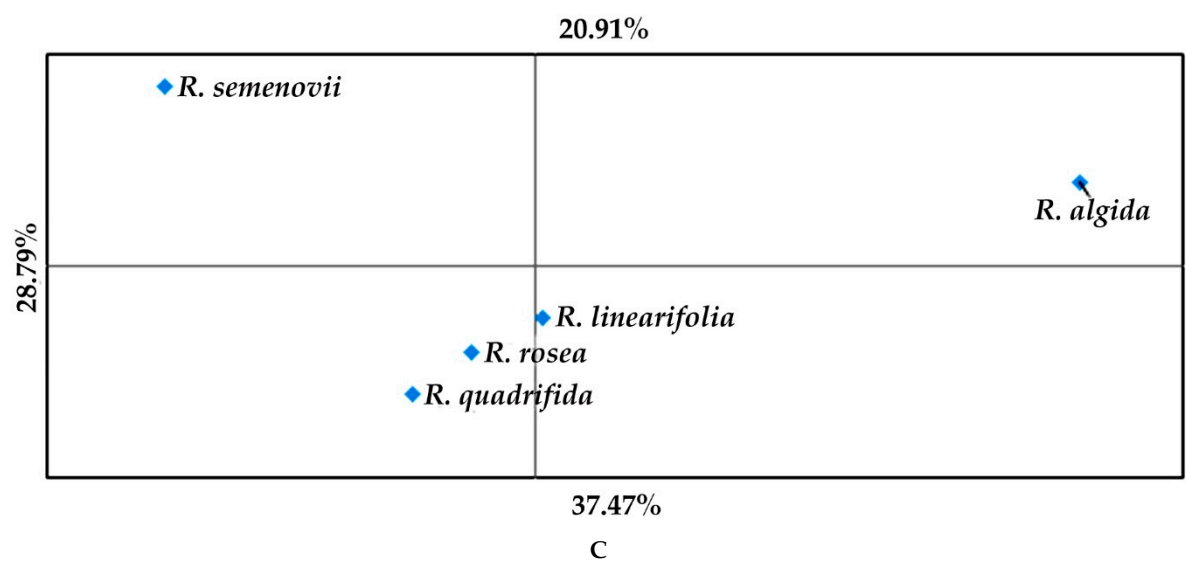
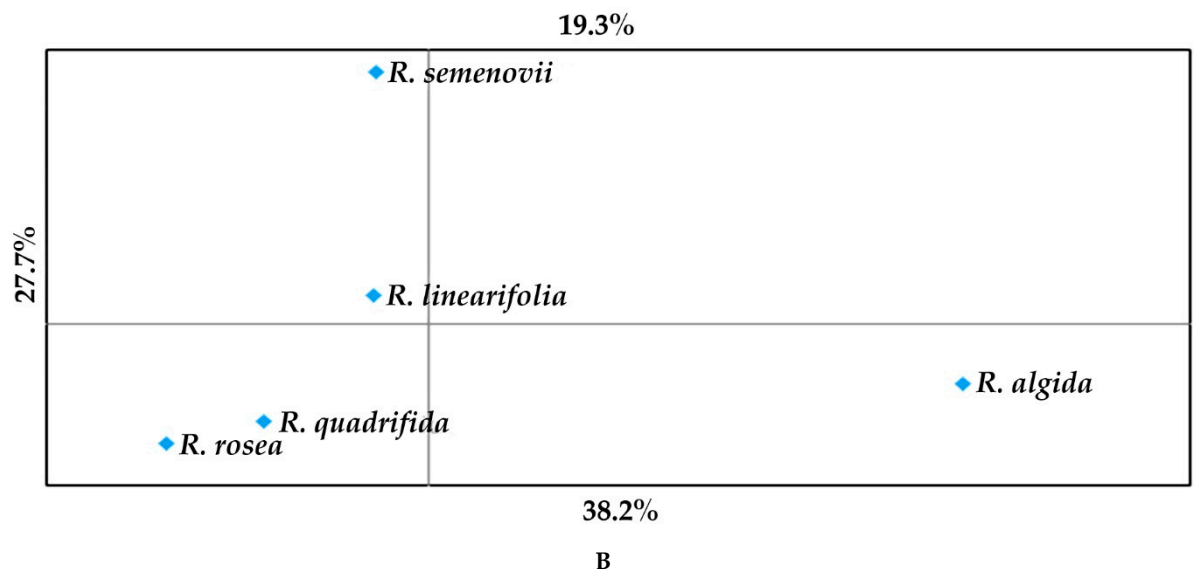
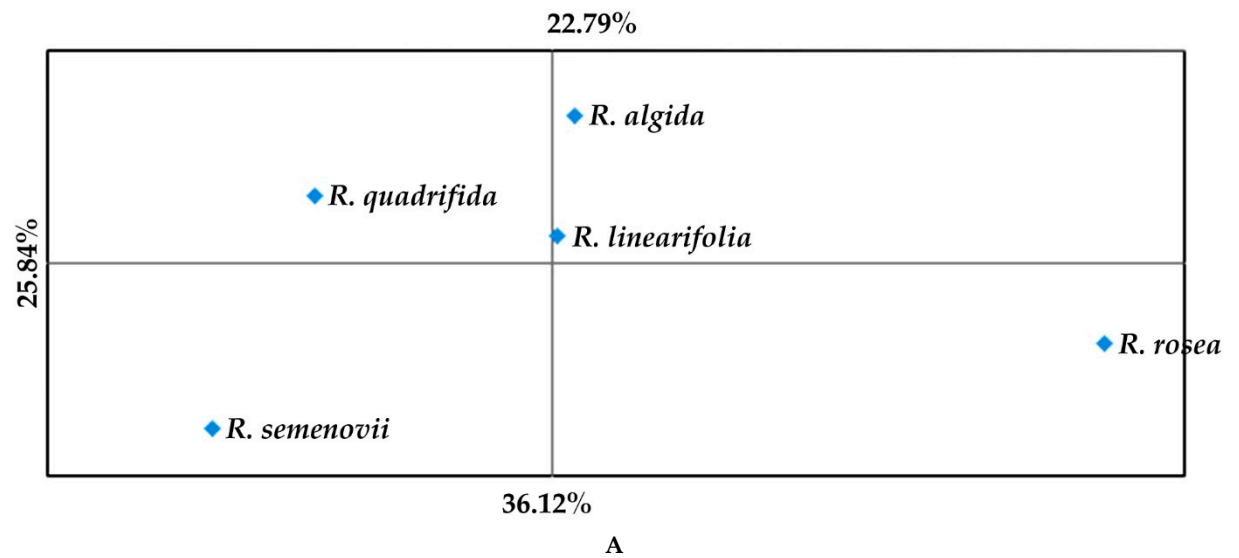


Figure S2. A plot of the distribution of *Rhodiola* species in the Principal Coordinates Analysis (PCoA) system: (A) by Superoxide Dismutase gene family; (B) by Auxin Response Factors gene family sequences examined; (C) by iPBS profiling results.

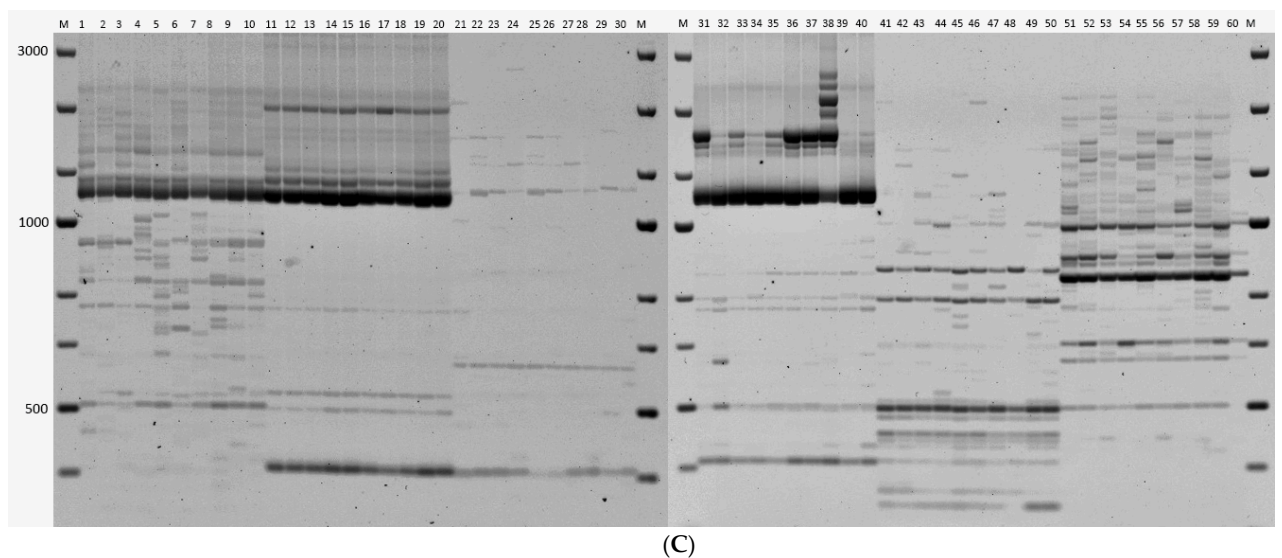
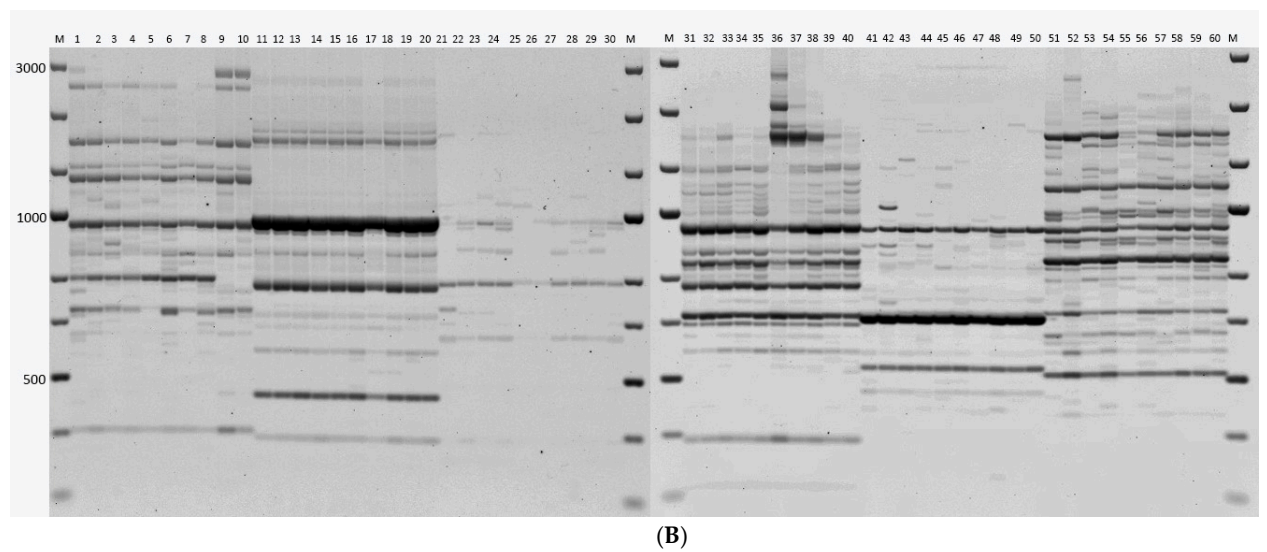
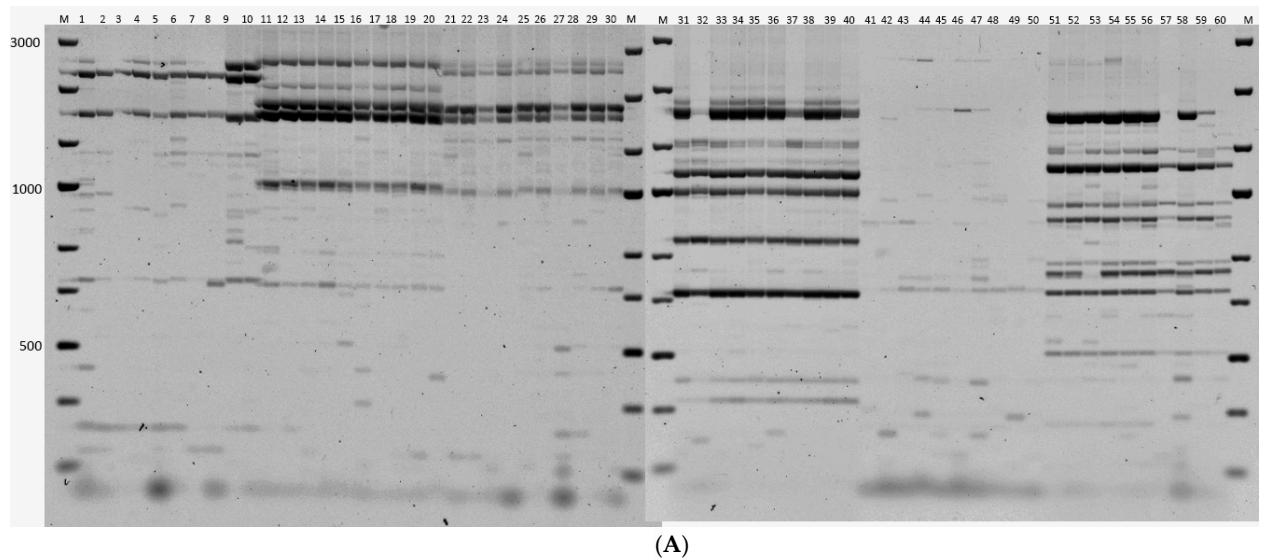
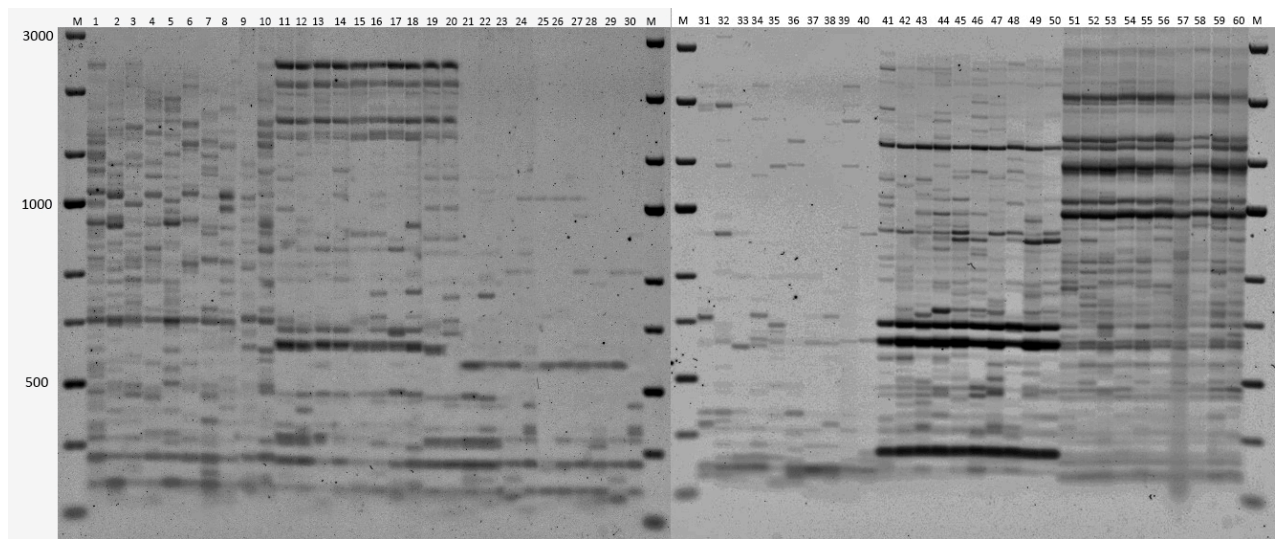
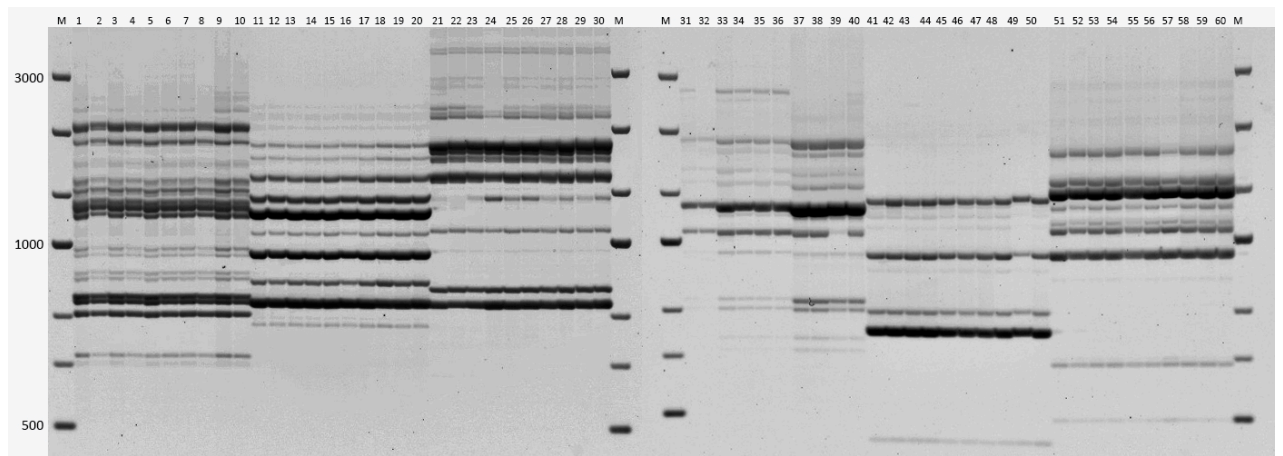


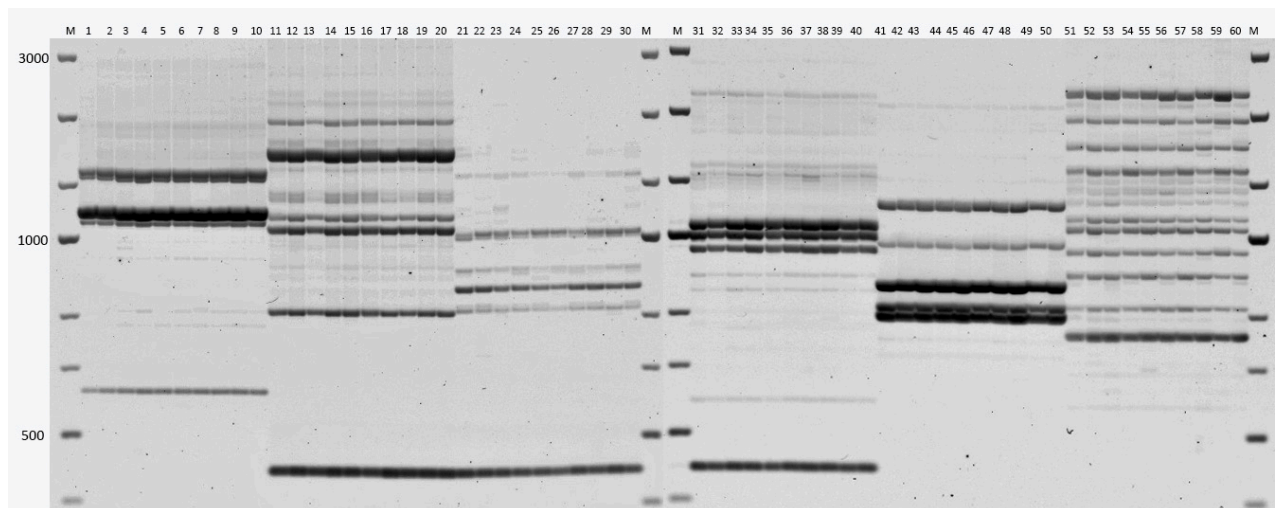
Figure S3. Electrophoretic pattern of EPIC-PCR for *Rhodiola* species using different pairs of primers to *Auxin Response Factors*: (A) pair (5176-5177): 1-10: *R. quadrifida*; 11-20: *R. rosea* (KZ); 21-30: *R. rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*; (B) pair (5176-5179): 1-10: *R. quadrifida*; 11-20 *R. rosea* (KZ); 21-30R. *rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*; (C) pair (5178-5177): 1-10: *R. quadrifida*; 11-20 *R. rosea* (KZ); 21-30R. *rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*. M - Thermo Scientific GeneRuler DNA Ladder Mix (100-10,000 bp).



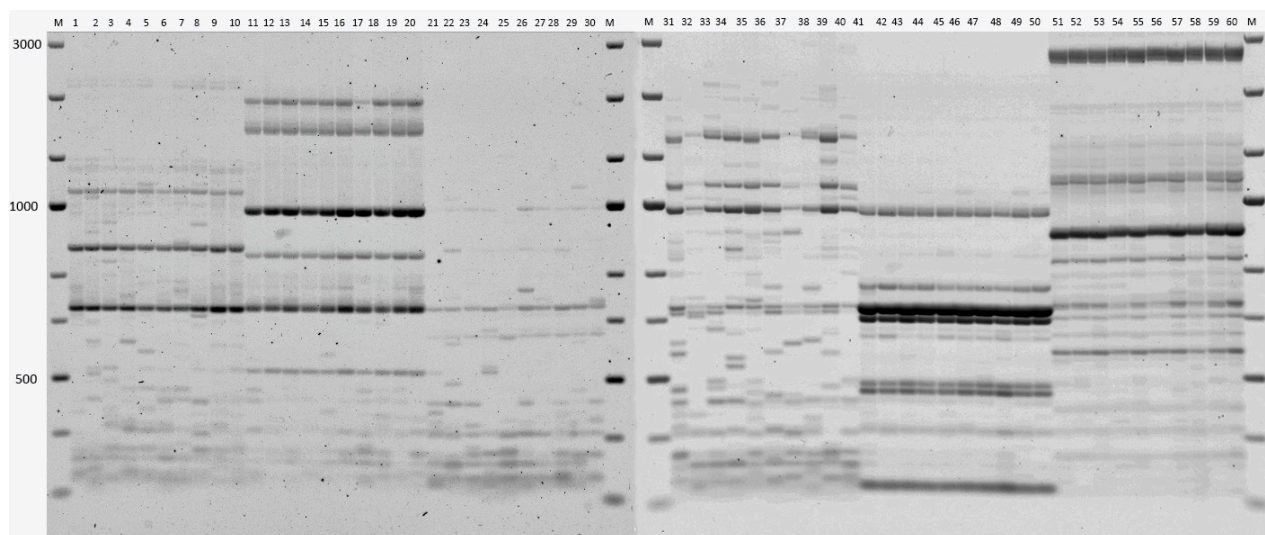
(A)



(B)



(C)



(D)

Figure S4. Electrophoretic pattern of iPBS profiling for *Rhodiola* species using single PBS primer: (A) primer 2221: 1-10: *R. quadrifida*; 11-20: *R. rosea* (KZ); 21-30: *R. rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*; (B) primer 2230: 1-10: *R. quadrifida*; 11-20: *R. rosea* (KZ); 21-30: *R. rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*; (C) primer 2240: 1-10: *R. quadrifida*; 11-20: *R. rosea* (KZ); 21-30: *R. rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*; (D) primer 2228: 1-10: *R. quadrifida*; 11-20: *R. rosea* (KZ); 21-30: *R. rosea* (RU); 31-40: *R. linearifolia*; 41-50: *R. semenovii*; 51-60: *R. algida*.