

P22

Optimization of RAPD-PCR Conditions for *Morusalba L.*

Bo-Kyung Yang, Na-Young Kim, Soon-Jae Jeong, Jaesung Nam,
Young-Byung Yi, Jae-Heon Lee, Won-Bok Chung
and Doh-Hoon Kim*

College of Natural Resources and Life Science, Dong-A University,
Pusan 604-714, Korea

Abstract

The optimized RAPD-PCR conditions, which can be utilized as a basic information for the analysis of the genetic characteristics were investigated with four mulberry varieties, named Milsung, Chungil, Suil, and Hansung using Operon primers, OPY13(5'-GGGTCTCGGT-3') and OPY15(5'-AGTCGCCCTT-3'). We tested several concentrations of DNA, primer, MgCl₂, annealing temperature, number of PCR cycle, and presence/absence of pre-heating time at the beginning of PCR reaction in the 25 μ l volume. The best RAPD profiles were obtained using 50ng of DNA, 5mM of primer, 1.5mM of MgCl₂, 45°C of annealing temperature and an absence of pre-heating time. An establishment of the stable and reproducible RAPD-PCR conditions are expected to be useful for the subsequent RAPD-related investigation, such as genetic characterization of the mulberry strains, re-establishment of phylogenetic relationships and development of new varieties.