

IDENTIFICATION AND CHARACTERIZATION OF THE MICROVARIANT ALLELES IN KOREAN POPULATIONS

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13 short tandem repeat markers (TH01, TPOX, CSF1PO, D3S315, vWA, FGA, D5S818, D13S317, D7S820, D16S539, D8S1179, D21S11 and D18S51) were analyzed for 10,859 individuals selected at random in Korean populations for preliminary DNA databases in order to collect detailed information of microvariant alleles relating to unexpected population genetic variation. The allelic variations were analyzed by PCR amplification using both PowerPlex 16 and AmpFLSTR Identifiler Kits. Several microvariant alleles were observed at the D21S11, D7S820, FGA, CSF1PO, vWA and D5S818 locus. Observed microvariants were sequenced after cloning, showing genetic variations such as deletion, transition and addition. Instance of D21S11 and D7S820 locus was observed 5 patterns of variant alleles. FGA showed 4 patterns of variant alleles. CSF, vWA and D5S818 displayed single pattern of variant alleles.