



D1S80 LOCUS VARIABILITY IN INDIAN POPULATION

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A population study of D1S80 locus in Indian population (n = 100) was carried out using PCR based analysis. The amplified alleles were fractionated by PAGE. The size of the core sequence of D1S80 locus is 16 bp. The identity of the repeat units within an allele can vary from one repeat unit to another. The smallest allele that has been found, contains 14 repeats and the largest allele, contains more than 41 repeats. This locus has been extensively studied in several populations including Polish, Chinese, African, Brazilian, Thais, etc. and was found to be highly polymorphic. There have been no reports of any study of this locus from India, with regard to Indian population. Therefore we analyzed this locus in Indian population. In order to fulfill the minimum criteria for use in forensics, the analysis of D1S80 or other similar VNTR loci should be authenticated to be useful for population genetic issues. In our study we have found that the polymorphism of D1S80 alleles in Indian population is low. This has given a lead to further study a large number of subgroups of Indian populations.

Contamination of other biological samples in forensic samples is a common feature and therefore the test which is applied for individualization should be human specific. To establish that that D1S80 sequences are human specific we had carried out PCR of the DNA samples of E.coli, Neurospora, Xanthomonas, Bacillus, goat, buffalo, tiger, dog, rabbit, pig, deer and lion. The results confirmed that DIS80 is human specific.

