

# Y-STR HAPLOTYPE FREQUENCIES IN AN AUSTRALIAN CAUCASIAN POPULATION

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Six Y-Specific loci in conjunction with one XY-Specific locus were used to determine allele and haplotype frequencies in an Australian Caucasian population. The seven loci were successfully amplified by using two separate multiplexed reactions. FAM-labeling of the forward primer of each pair enabled analysis to be performed on the ABI™ 373A/377 Sequencers.

The first multiplex reaction, named QUAD 1, amplified the DYS389-II, DYS389-I, DYS390 and DYS393 loci. The second multiplex reaction, named QUAD 2, amplified the DYS391, DYS19 and DXYS156Y loci.

Individual locus allele and haplotype frequencies were compiled from 236 unrelated males. From these, 146 different haplotypes were observed, with 116 haplotypes being unique. The most common haplotype was found in 20 individuals, resulting in a frequency of 0.085.

The highly discriminating power of these Y-chromosome loci used alone (in exclusionary cases) or in conjunction with autosomal markers is particularly useful in paternity and sibship analysis.

