17 Y-CHROMOSOME STR LOCI VARIATION IN CABINDA (ANGOLA)

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In order to obtain a more detailed view of the Y variation in southwest Africa, 16 Y-STR markers (DYS19, DYS385, DYS389I, DYS389II, DYS390, DYS391, DYS392, DYS393, DYS437, DYS438, DYS439, DYS460, DYS461, GATA A10, GATA C4 e GATA H4) were typed in a sample of 72 male individuals from Cabinda, an Angolan population separated from the rest of Angola by a strip of land belonging to Democratic Republic of Congo. Allele and haplotype frequencies and respective diversities were estimated for this set of loci. A total of 70 different haplotypes were identified using the present set of Y-STR markers, among which 68 (97%) haplotypes were individual-specific. Of the two non-unique haplotypes, one was shared by 2 individuals and the other by 3. The observed haplotype diversity was 0.9985. Considering the most common set of Y-STRs used to characterize African populations until now, DYS19, DYS3891 and II, DYS390, DYS391, DYS392 and DYS393, the haplotype diversity is 0.9688, a value that falls in the range of the ones found in the west coast of this continent; adding DYS385 to the above set (minimal haplotype included in the Y-STR Reference Database [http://www.ystr.org]), the haplotype diversity increases to 0.9945. Analysing the set selected by the Scientific Working Group on DNA Analysis Methods (SWGDAM) for forensic DNA analysis in the US (DYS19, DYS385, DYS389I, DYS389II, DYS390, DYS391, DYS392, DYS393, DYS438, DYS439) a value of 0.9965 is observed for this parameter. The same value of diversity is obtained when adding DYS437 to the SWGDAM set, which comprises the battery included in the PowerPlex Y System Kit of the Promega Corporation. This means that DYS437 does not increase the discrimination capacity of the considered haplotype set, in Cabinda. Finally, the present haplotype data was compared with other African data available for the same set of loci.