

STR FREQUENCIES AND MITOCHONDRIAL DNA FROM A NORTH AFRICA POPULATION

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DNA analysis is a new and powerful tool for the search of the truth. In the case of identity of two nuclear DNA from two different samples, results must be associated with the frequency of the profile in the dedicated population. In France, Caucasians are the most represented ethnic group, but others are present, such as African Black or North Africans. Since no reference from the North African population is available, we performed a study on STR loci and on mitochondrial DNA hypervariable regions.

DNA from one hundred North Africans was extracted. Ten STR loci (SGM + and Profiler Plus™ from Perkin Elmer) were analyzed as well as HVI and HVII for mitochondrial DNA.

We present the results obtained for the ten STR loci. For mitochondrial DNA 114 mutations were found by comparison with the Anderson mitochondrial reference sequence defining 97 mitotypes. Among them 18 were represented more than 10 times; the majority (43) were unique. We compare these results with other populations.

We discussed the usefulness of presenting such results in court and the question of homogeneity of ethnic group from such a large African area.