

MITOCHONDRIAL DNA CONTROL REGION SEQUENCES FROM NORTHWEST POPULATION OF BRAZIL

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Brazil's demographic composition has been historically influenced by population interactions such as the European migration and African slavery trade. The territory colonization occurred alongside different historical events at the beginning of the 16th century which intensely contributed to the genetic admixture. Data concerning the maternal lineages from Brazilian populations are scarce and most of them have been generated just for hypervariable I and II regions (HVI and HVII). In this study, we have analyzed the mtDNA control region of blood spots collected on Whatman FTA[®] Cards from 50 unrelated individuals born in Northwest region of Brazil including Bahia, Ceará, Maranhão, Pernambuco e Piauí. Samples were processed by direct PCR amplification; and the extension products were analyzed on a ABI 3500 Genetic Analyzer (Applied Biosystems). The haplogroups were classified using the online software HaploGrep (Phylo Tree build 17) after assembly and comparison to the revised Cambridge Reference Sequence (rCRS) using the SeqScape[®] Software v2.5. Our data showed a high contribution of African (45.8 %) and Native American ancestry (45.8 %) followed by European (8.4 %) proportions. These data are in accordance with other data comparing the Brazilian geographical regions and reinforce the importance of further studies with applications in both medical and forensic genetics.

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