

Abstract:

Abstract The genes of the major histocompatibility complex (MHC) are amongst the most polymorphic loci known in the human population. The population genetics of the MHC encoded HLA loci of sub-Saharan Africa are of major interest because of their particular genetic diversity. Here we report on the HLA-DR 52- and 51-associated determinants of the DRB1 loci observed in 165 East African individuals studied in Nairobi, Kenya. The HLA-DR typing was done by serologic and by molecular DNA techniques (PCR-SSOP). The most frequent allele identified was DRB1*1101, followed by DRB1*1503 and DRB1*1302. Some unexpected alleles were repeatedly identified: DRB1*1108, DRB1*1316 and DRB1*1421. Most of the DR 52- and 51-associated DRB1 alleles were correctly identified by serology as part of the DR3, DR5, DR6 and DR2 groups respectively. The HLA-DRB1 profile reported here corroborates previous genetic and linguistic data supporting the concept that the Eastern African Black population is genetically distinct from other African Black populations. This has important implications in public health issues related to the genetic profile of a population (transplantation, vaccine design for example).