

HLA DRB1 Gene Study in Different Population Groups From Mumbai, Maharashtra, India

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ABSTRACT Indian population exhibits not only a wide variety of ethnic but also great culture and linguistic diversity. In the present study 483 unrelated individuals belonging to different linguistic groups from Maharashtra were studied for their HLA DRB1* allele gene frequencies using commercially procured PCR-SSOP kits. The results revealed that > 0.1 allele frequencies observed for HLA DRB1*03 among Marathi, Gujarathi and Punjabi linguistic groups; for HLA DRB1*06 among Marathi, Gujarathi, South Indian, Muslim and Christians; for HLA DRB1*05 among Gujarathi, Punjabi, Muslim and Christian; for HLA DRB1*07 among Gujarathi, Punjabi and Muslim. HLA DRB1*02 was observed > 0.1 allele frequencies among all the Marathi, Gujarathi, Punjabi, South Indian, Muslim, Christian and the random Western Indians studied. Further HLA DRB1*01, DRB1*08, DRB1*09 and DRB1*10 were < 0.1 allele frequencies in all the population groups studied. When compared with other reported Indian populations HLA DRB1*0305, DRB1*0308, DRB1*0309, DRB1*1107, DRB1*1111, DRB1*1123, DRB1*1128, DRB1*1307, DRB1*1315, DRB1*1334, DRB1*1402, DRB1*1410, DRB1*1411 and DRB1*1416 were identified in our study. Our results suggest the influence of genetic drift caused by selection geography and culture among different population groups studied and the Indian population cannot be considered as a single panmictic population.