

The genetic diversity of KIR genes and genotypes resembles of the HLA. Although the genes encoding KIR and HLA are located in different chromosomes and segregate independently, there is some evidence of some kind of co-evolution. Therefore, one could expect reduced KIR diversity within the HLA restricted population. A total of 41 unrelated individuals homozygous for ancestral HLA haplotype AH8.1 (HLA-A*0101-Cw*0701-B*0801-DRB1*0301-DQB1*0201), were typed for KIR genes. Over all, fourteen different genotypes were identified. The observed frequencies of KIR genes and genotypes composition generally mirror the published frequencies in Caucasians. Non-framework genes with frequency of more than 90 % included KIR2DL1, KIR2DL3, KIR3DL1, KIR2DS4 and KIR2DP1. Except for the KIR2DS4, all activating genes presented frequencies below 50 %. KIR2DS5 was the least frequent among activating genes (17 %), whereas KIR2DL5 (37 %) among inhibitory ones. The most frequent (39 %) was AA genotype. 22 individuals (54 %) had a copy of KIR haplotype A and B (AB genotype), whereas 3 (7%) were homozygous for B (BB genotype). Nine of 14 reported genotypes occurred only in one individual. Comparing with published and recorded genotypes (www.allelefreqencies.net), 5 genotypes were reported in less than 20 individuals worldwide and one genotype was reported so far only once. On the other hand, the three most frequent genotypes account for 68 % of all detected genotypes. The results do not show any alteration in the KIR repertoire. Instead we demonstrate the well-preserved and unrestricted KIR diversity in this HLA uniform group.