

Killer-cell Immunoglobulin-like Receptor (KIR)

Fifteen expressed Killer-cell Immunoglobulin-like Receptor (KIR) genes and two pseudogenes are currently recognised. To date (February 2009) a total 335 KIR alleles have been defined at the different loci, of which 111 were identified over the past two years. Details of the KIR genes, their alleles and proteins are available from the IPD-KIR Database, which provides a centralised repository for human KIR sequences. KIR have been shown to be highly polymorphic at the allelic and haplotypic level. KIRs are members of the immunoglobulin superfamily (IgSF) and were formerly called Killer-cell Inhibitory Receptors. They are composed of two or three Ig-domains, a transmembrane region and cytoplasmic tail which can in turn be short (activatory) or long (inhibitory). The Leukocyte Receptor Complex (LRC) which encodes KIR genes has been shown to be polymorphic, polygenic and complex like the Major Histocompatibility Complex. KIR nomenclature has been defined for KIR genes, proteins and alleles, and will once sufficient information is available, be extended to haplotypes and genotypes [[Marsh SGE, Parham P, Dupont B, Geraghty DE, Trowsdale J, Middleton D, Vilches C, Carrington M, Witt C, Guethlein LA, Shilling H, Garcia CA, Hsu KC, Wain H. Killer-cell Immunoglobulin-like Receptors \(KIR\) Nomenclature Report, 2002. Immunogenetics \(2003\) 55:220-226](#)]