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Immunoglobulin Domain

National Cancer Institute

Source

National Cancer Institute. *Immunoglobulin Domain*. NCI Thesaurus. Code C13806.

The major histocompatibility complex (MHC) molecules are made of 2 chains, alpha and beta. In class I, the alpha chain is composed of 3 extracellular domains, a transmembrane region and a cytoplasmic tail while the beta chain is of a single extracellular domain. In class II, both the alpha and the beta chains are composed of 2 extracellular domains, a transmembrane region and a cytoplasmic tail. The immunoglobulin (Ig) constant chain domains and a single extracellular domain in each type of MHC chains are homologous and approximately one hundred amino acids long, and include a conserved intra-domain disulfide bond. Members of the immunoglobulin superfamily are found in hundreds of proteins of different functions, e.g., antibodies, the giant muscle kinase titin and receptor tyrosine kinases. Immunoglobulin-like domains may be involved in protein-protein and protein-ligand interactions. (InterPro IPR007110)