

**HUMAN KIR2DL1 PROTEIN, HFC TAG****Cat.#:** 11623**Product Name:** Human KIR2DL1 Protein**Size:** 10 µg, 50 µg and 100 µg**Synonyms:** CD158A;KIR-K64;KIR2DL3;KIR221;NKAT;NKAT-1;NKAT1;p58.1**Target:** KIR2DL1**UNIPROT ID:** P43626**Description:** Recombinant Human KIR2DL1 Protein with C-terminal human Fc tag

**Background:** Killer cell immunoglobulin-like receptors (KIRs) are transmembrane glycoproteins expressed by natural killer cells and subsets of T cells. The KIR genes are polymorphic and highly homologous and they are found in a cluster on chromosome 19q13.4 within the 1 Mb leukocyte receptor complex (LRC). The gene content of the KIR gene cluster varies among haplotypes, although several "framework" genes are found in all haplotypes (KIR3DL3, KIR3DP1, KIR3DL4, KIR3DL2). The KIR proteins are classified by the number of extracellular immunoglobulin domains (2D or 3D) and by whether they have a long (L) or short (S) cytoplasmic domain. KIR proteins with the long cytoplasmic domain transduce inhibitory signals upon ligand binding via an immune tyrosine-based inhibitory motif (ITIM), while KIR proteins with the short cytoplasmic domain lack the ITIM motif and instead associate with the TYRO protein tyrosine kinase binding protein to transduce activating signals. The ligands for several KIR proteins are subsets of HLA class I molecules; thus, KIR proteins are thought to play an important role in regulation of the immune response. [provided by RefSeq, Jul 2008]

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 50.4 kDa after removal of the signal peptide. The apparent molecular mass of KIR2DL1-hFc is approximately 55-100 kDa due to glycosylation.

**Molecular Characterization:** KIR2DL1(His22-Arg242) hFc(Glu99-Ala330)

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$  for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at  $-80^{\circ}\text{C}$  (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.



Figure 1. Human KIR2DL1 Protein, hFc Tag on SDS-PAGE under reducing condition.