



# Recombinant Protein Technical Manual

## Recombinant Human KIR2DL1/CD158a Protein (His Tag)

RPES0944

### Product Data:

**Product SKU:** RPES0944

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_055033.2

### Protein Information:

**Molecular Mass:** 26 kDa

**AP Molecular Mass:** 45 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 92 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** CD158A;KIR-K64;KIR221;NKAT;NKAT;NKAT1;p58.1;XXbac-BCX195L8.1;XXbac-BPG184J6.7

## Immunogen Information:

**Sequence:** Met 1-His 245

## Background:

Killer cell immunoglobulin-like receptor 2DL1 or KIR2DL1 is an inhibitory natural Killer cell immunoglobulin-like receptor with two extracellular immunoglobulin domains. KIR2DL1 is a member of the Killer cell immunoglobulin-like receptor family whose members are classified by the number of the extracellular immunoglobulin domains and the length of the cytoplasm domain. KIR2DL1 is a transmembrane glycoprotein expressed by natural killer cells and subsets of T cells. KIR2DL1 down-regulates the cytotoxicity of NK cells upon recognition of specific class I major histocompatibility complex (MHC) molecules on target cells. It has been reported that the KIR2DL1 bound to its class I MHC ligand, HLA-Cw4. The KIR2DL1-HLA-Cw4 interface exhibits charge and shape complementarity. Specificity is mediated by a pocket in KIR2DL1 that hosts the Lys80 residue of HLA-Cw4. Many residues conserved in HLA-C and in KIR2DL receptors make different interactions in KIR2DL1-HLA-Cw4 and in a previously reported KIR2DL2-HLA-Cw3 complex. A dimeric aggregate of KIR-HLA-C complexes was observed in one KIR2DL1-HLA-Cw4 crystal.