Human KIR2DL1 / CD158a Protein (His Tag)

Catalog Number: **13145-H08H**

General Information

Gene Name Synonym:

CD158A; KIR-K64; KIR221; NKAT; NKAT-1; NKAT1; p58.1; XXbac-BPG184J6.7

Protein Construction:

A DNA sequence encoding the human KIR2DL1 (NP_055033.2) extracellular domain (Met 1-His 245) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: His 22

Molecular Mass:

The secreted recombinant human KIR2DL1 comprises 235 amino acids and has a predicted molecular mass of 26 kDa. The apparent molecular mass of rhKIR2DL1 is approximately 45 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

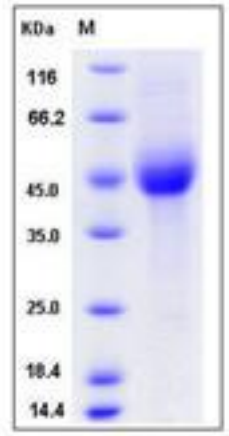
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1.Fan QR, *et al.* (2001) Crystal structure of the human natural killer cell inhibitory receptor KIR2DL1-HLA-Cw4 complex. Nature Immunology. 2: 452-60. 2.Wagtmann N, *et al.* (1995) Molecular clones of the p58 NK cell receptor reveal immunoglobulin-related molecules with diversity in both the extra- and intracellular domains. Immunity. 2 (5): 439-49. 3.Colonna M, *et al.* (1995) Cloning of immunoglobulin-superfamily members associated with HLA-C and HLA-B recognition by human natural killer cells. Science. 268 (5209): 405-8.