# Recombinant Human Killer Cell Immunoglobulin-like Receptor, Three Domains, Long Cytoplasmic Tail, 1

**Cat. No.** KIR3DL1-4417H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant KIR3DL1 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 132 amino acids and having a molecular mass of 15 kDa.The KIR3DL1 is purified by proprietary chromatographic techniques. |
| **Species** | Human |
| **Source** | Human |
| **Description** | Killer-cell immunoglobulin-like receptors (KIRs), are a family of cell surface glycoproteins found on Natural Killer (NK) Cells, which are important cells of the immune system. They control the killing function of these cells by interacting with MHC class I molecules, which are expressed on all cell types. This interaction allows them to identify virally infected cells or tumor cells that have a distinctive low level of Class I MHC on their surface. The majority of KIRs are inhibitory, which means that their recognition of MHC suppresses the cytotoxic activity of their NK cell. Whereas 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 three Ig-domain from of inhibitory killer cell Ig-like receptor 1(KIR3DL1, NKB1, nkat3, p70KIR) is a NK cell receptor for polymorphic HLA-B determinant. KIR3DLl recognizes the Bw4 determinant defined by sequence motifs at positions 77-83 of the HLA-B heavy chain. The cytoplasmic tail of KIR, which contains two immunoreceptor tyrosine-based inhibition motifs (ITIMs), mediates inhibitory signal transduction that prevents killer cell-mediated cytotoxicity. A His-tag fusion |

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| | protein of KIR3DL1 cytoplasmic tail (361-444aa) was overexpressed as insoluble protein aggregates (inclusion bodies). |
| **Form** | The protein (1mg/ml) contains 25mM Tris-HCl (pH7.5) and 100mM NaCl. |
| **Purity** | Greater than 95.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE. |
| **Physical Appearance** | Sterile filtered colorless solution. |
| **Amino acid sequence** | MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSTSGT IDKLDIEFHLWCSNKKNAAV MDQEPAGNRT ANSEDSDEQD PEEVTYAQLD HCVFTQRKIT RPSQRPKTPP TDTILYTELP NAKPRSKVVS CP. |
| **Storage** | Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles. |
| **Pathways** | Antigen processing and presentation; Natural killer cell mediated cytotoxicity; Signaling in Immune system |

## GENE INFORMATION

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| **Gene Name** | KIR3DL1 killer cell immunoglobulin-like receptor, three domains, long cytoplasmic tail, 1 [ Homo sapiens ] |
| **Official Symbol** | KIR3DL1 |
| **Synonyms** | KIR3DL1; killer cell immunoglobulin-like receptor, three domains, long cytoplasmic tail, 1; KIR; NKB1; NKAT3; NKB1B; MGC119726; MGC119728; MGC126589; MGC126591; AMB11; CD158E; CD158e1; NK-receptor; NKAT-3; NKAT3; nkat3; |

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| | CD158E1; CD158E1/2; CD158E2; CL-11; CL-2; KIR-G1; KIR3DL1/2V; KIR3DS1; MGC119726; MGC119728; MGC126589; MGC126591; NKAT10; NKB1; NKB1B; CD158 antigen-like family member E; CD158e antigen; HLA-BW4-specific inhibitory NK cell receptor; KIR antigen 3DL1; MHC class I NK cell receptor; Natural killer-associated transcript 3; killer cell immunoglobulin-like receptor 3DL1; p70 killer cell inhibitory receptor; p70 natural killer cell receptor clones CL-2/CL-11; KIR3DL1 killer cell immunoglobulin-like receptor, three domains, long cytoplasmic tail, 1 |
| **Gene ID** | 3811 |
| **mRNA Refseq** | NM_013289 |
| **Protein Refseq** | NP_037421 |
| **MIM** | 604946 |
| **UniProt ID** | P4369 |
| **Chromosome Location** | 19q13.4 |
| **Function** | HLA-B specific inhibitory MHC class I receptor activity; receptor activity |

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