

Recombinant Human KI2L4 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50593

Size: 10ug, 100ug

Protein Name: Killer cell immunoglobulin-like receptor 2DL4 (CD158 antigen-like family member D) (G9P) (Killer cell inhibitory receptor 103AS) (KIR-103AS) (MHC class I NK cell receptor KIR103AS) (CD antigen CD158d)

Synonym: KIR2DL4, CD158D, KIR103AS

UniProt ID: Q99706

UniProt Link: www.uniprot.org/uniprotkb/Q99706/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 377 AA

Molecular Weight: 41 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSMSPTVIILACLGFLLDQSVWAHVGGQDKPFCSAWPSAVVPQGGHVTLRCHYRRGFNIFTLYKKD
GVPVPELYNRIFWNSFLISPVTPAHAGTYRCRGFHPHSPTIEWSAPSNPLVIMVTGLYEKPSLTARPG
PTVRAGENVTLSQSSQSSFDIYHLSREGEAHELRLPAVPSINGTFQADFPLGPATHGETYRCFGSFH
GSPYEWSDPSDPLPVSVTGNPSSSWPSPTEPSFKTGIAHLHAVIRYSVAIILFTILPFFLLHRWCSKK
KDAAVMNQEPAGHRTVNREDSDEQDPQEVTYAQLDHCIFTQRKITGPSQRSKRPSTDTSVCIELPN
AEPRALSPAHEHHSQALMGSSRETTALSQTQLASSNVPAAGI

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Killer cell immunoglobulin-like receptor 2DL4 (CD158 antigen-like family member D) (G9P) (Killer cell inhibitory receptor 103AS) (KIR-103AS) (MHC class I NK cell receptor KIR103AS) (CD antigen CD158d) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Receptor for non-classical major histocompatibility class Ib HLA-G molecules. Recognizes HLA-G in complex with B2M/beta-2 microglobulin and a nonamer self-peptide (peptide-bound HLA-G-B2M). In decidual NK cells, binds peptide-bound HLA-G-B2M complex and triggers NK cell senescence-associated secretory phenotype as a molecular switch to promote vascular remodeling and fetal growth in early pregnancy (PubMed:16366734, PubMed:23184984, PubMed:29262349). May play a role in balancing tolerance and antiviral-immunity at maternal-fetal interface by keeping in check the effector functions of NK, CD8+ T cells and B cells (PubMed:10190900, PubMed:16366734). Upon interaction with peptide-bound HLA-G-B2M, initiates signaling from the endosomal compartment leading to downstream activation of PRKDC-XRCC5 and AKT1, and ultimately triggering NF-kappa-B-dependent pro-inflammatory response (PubMed:20179272).

Subcellular Localization: Cell membrane; Single-pass type I membrane protein. Early endosome membrane .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.