

Recombinant Human LIRB1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50627

Size: 10ug, 100ug

Protein Name: Leukocyte immunoglobulin-like receptor subfamily B member 1 (LIR-1) (Leukocyte immunoglobulin-like receptor 1) (CD85 antigen-like family member J) (Immunoglobulin-like transcript 2) (ILT-2) (Monocyte/macrophage immunoglobulin-like receptor 7) (MIR-7) (CD antigen CD85j)

Synonym: LILRB1, ILT2, LIR1, MIR7

UniProt ID: Q8NHL6

UniProt Link: www.uniprot.org/uniprotkb/Q8NHL6/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 650 AA

Molecular Weight: 71 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MTPILTVLICLGLSLGPRTHVQAGHLPKPTLWAEPSVITQGSPVTLRCQGGQETQEYRLYREKKA
LWITRIPQELVKKGGQFPIPSITWEHAGRYRCYYGSDTAGRSESSDPLELVVTGAYIKPTLSAQSPVV
NSGGNVILQCDSQVAFDGFSLCKEGEDEHPQCLNSQPHARGSSRAIFSVGPVSPSRRWWYRCYAY
DSNSPYEWSLPSDLLELLVLGVSKKPSLSVQPGPIVAPEETLTLCGSDAGYNRFVLYKDGERDFLQ
LAGAQPQAGLSQANFTLGPVSRSYGGQYRCYGAHNLSSEWSAPSDPLDILIAGQFYDRVSLSVQPG
PTVASGENVTLLCQSQGWMTFLLTKEGAADDPWRLRSTYQSQKYQAEFPMGPVTSAGTYRC
YGSQSSKPYLLTHPSDPLELVVSGPSGGPSSPTTGPTSTSGPEDQPLTPTGSDPQSGGLGRHLGVVI
GILVAVILLLLLLLLLFLILRHRQKGKHWSTSTQRKADFQHPAGAVGPEPTDRGLQWRSSPAADAQEE
NLYAAVKHTQPEDGVEMDTRSPHDEDPQAVTYAEVKHSRPRREMASPPSPLSGEFLDTKDRQAE
DRQMDTEAAASEAPQDVTYAQLHSLTLRREATEPPPSQEGPSPAVPSIYATLAIH

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 Leukocyte immunoglobulin-like receptor subfamily B member 1 (LIR-1) (Leukocyte immunoglobulin-like receptor 1) (CD85 antigen-like family member J) (Immunoglobulin-like transcript 2) (ILT-2) (Monocyte/macrophage immunoglobulin-like receptor 7) (MIR-7) (CD antigen CD85j) 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 class I MHC antigens. Recognizes a broad spectrum of HLA-A, HLA-B, HLA-C, HLA-G and HLA-F alleles (PubMed:16455647, PubMed:28636952). Receptor for H301/UL18, a human cytomegalovirus class I MHC homolog. Ligand binding results in inhibitory signals and down-regulation of the immune response. Engagement of LILRB1 present on natural killer cells or T-cells by class I MHC molecules protects the target cells from lysis. Interaction with HLA-B or HLA-E leads to inhibition of FCER1A signaling and serotonin release. Inhibits FCGR1A-mediated phosphorylation of cellular proteins and mobilization of intracellular calcium ions (PubMed:11907092, PubMed:9285411, PubMed:9842885). Recognizes HLA-G in complex with B2M/beta-2 microglobulin and a nonamer self-peptide (PubMed:16455647). Upon interaction with peptide-bound HLA-G-B2M complex, triggers secretion of growth-promoting factors by decidual NK cells (PubMed:19304799, PubMed:29262349). Reprograms B cells toward an immune suppressive phenotype (PubMed:24453251).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein .; [Isoform 5]: Secreted .

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.