

## LILRB1/CD85j/ILT2 Protein, Human (346a.a, HEK293, His)

Cat. No.:	HY-P77981
Synonyms:	ILT2; ILT-2; ILT2FLJ37515; LILRB1; LIR1; MIR7; CD85J; XXbac-BCX85G21.4
Species:	Human
Source:	HEK293
Accession:	Q8NHL6 (L116-V461)
Gene ID:	10859
Molecular Weight:	55-68 kDa

### PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

Background	<p>The LILRB1/CD85j/ILT2 Protein serves as a receptor for class I MHC antigens, demonstrating recognition across a broad spectrum of HLA-A, HLA-B, HLA-C, HLA-G, and HLA-F alleles. Additionally, it acts as a receptor for H301/UL18, a human cytomegalovirus class I MHC homolog. Ligand binding induces inhibitory signals, leading to the down-regulation of the immune response. The engagement of LILRB1 by class I MHC molecules on natural killer cells or T-cells protects target cells from lysis, and interaction with HLA-B or HLA-E inhibits FCER1A signaling and serotonin release. Moreover, LILRB1 inhibits FCGR1A-mediated cellular responses, including phosphorylation of proteins and mobilization of intracellular calcium ions. It recognizes HLA-G in complex with B2M/beta-2 microglobulin and a nonamer self-peptide, triggering the secretion of growth-promoting factors by decidual NK cells. Additionally, it reprograms B cells toward an immune suppressive phenotype. LILRB1 binds PTPN6 when phosphorylated and interacts with FCER1A, FCGR1A, and the UL18 protein from human cytomegalovirus. It also interacts with peptide-bound HLA-G-B2M and HLA-F-B2M complexes, highlighting its diverse roles in immune modulation and viral recognition.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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