LILRB1/CD85j/ILT2 Protein, Rhesus macaque (HEK293, C-His)

Cat. No.:	HY-P700778
Synonyms:	ILT2; ILT-2; ILT2FLJ37515; LILRB1; LIR1; MIR7; CD85J; XXbac-BCX85G21.4
Species:	Rhesus Macaque
Source:	HEK293
Accession:	NP_001035762.2 (M1-H474)
Gene ID:	692340
Molecular Weight:	65-70 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	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.

Caution: Product has not been fully validated for medical applications. For research use only.

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