LILRB1/CD85j/ILT2 Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P701017
Synonyms:	ILT2; ILT-2; ILT2FLJ37515; LILRB1; LIR1; MIR7; CD85J; XXbac-BCX85G21.4
Species:	Cynomolgus
Source:	HEK293
Accession:	XP_045236898.1 (G41-H474)
Gene ID:	102143922
Molecular Weight:	60-80 kDa

PROPERTIES

Biological Activity	Immobilized Cynomolgus LILRB1, His Tag at 0.5μg/ml (100μl/well) on the plate. Dose response curve for Anti-LILRB1 Antibody, hFc Tag with the EC_{50} of 60.8ng/ml determined by ELISA.
Appearance	Solution.
Formulation	Supplied as a 0.22μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	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	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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