LILRB2/CD85d/ILT-4 Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P78483
Synonyms:	CD85d; ILT4; ILT-4; ILT4CD85d; LILRB2; LIR2; MIR10
Species:	Human
Source:	HEK293
Accession:	Q8N423 (Q22-H458)
Gene ID:	10288
Molecular Weight:	70-75 kDa

PROPERTIES

Biological Activity	1. Serial dilutions of Anti-LILRB2 Antibody were added into Human LILRB2, His Tag : Biotinylated HLA-G Complex Tetramer, His Tag binding reactioins. The half maximal inhibitiory concentration (IC_{50}) is 75.3ng/ml. 2. Immobilized Human LILRB2, His Tag at 0.5μg/ml (100μl/well) on the plate. Dose response curve for Anti-LILRB2 Antibody, hFc Tag with the EC_{50} of 5.8ng/ml determined by ELISA.
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 LILRB2/CD85d/ILT-4 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. It plays a crucial role in immune response down-regulation and the establishment of tolerance. Specifically, it recognizes HLA-G in complex with B2M/beta-2 microglobulin and a nonamer self-peptide, leading to the differentiation of type 1 regulatory T cells and myeloid-derived suppressor cells, crucial for maintaining maternal-fetal tolerance. LILRB2 competes with CD8A for binding to class I MHC antigens and inhibits FCGR1A-mediated cellular responses, including phosphorylation of proteins and mobilization of intracellular calcium ions. Moreover, it interacts with PTPN6 when phosphorylated and binds to FCGR1A. The direct interactions with peptide-bound HLA-G-B2M and HLA-F-B2M further highlight its involvement in immune modulation.

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

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