

## **Product** Data Sheet

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

**Cat. No.:** HY-P70168

Synonyms: rHuLeukocyte immunoglobulin-like receptor subfamily B member 2/LILRB2, His; Leukocyte

Immunoglobulin-Like Receptor Subfamily B Member 2; LIR-2; Leukocyte Immunoglobulin-Like Receptor 2; CD85 Antigen-Like Family Member D; Immunoglobulin-Like Transcript 4; ILT-4;

Monocyte/Macrophage Immunoglobulin-Like Receptor 10; MIR-10; CD85d; L

Species: Human
Source: HEK293

**Accession:** AAH36827.1 (Q22-H458)

Gene ID: 10288

Molecular Weight: 58-75 kDa

#### **PROPERTIES**

AA Sequence				
78 Cocquerice	QTGTIPKPTL	WAEPDSVITQ	GSPVTLSCQG	SLEAQEYRLY
	REKKSASWIT	RIRPELVKNG	QFHIPSITWE	HTGRYGCQYY
	SRARWSELSD	PLVLVMTGAY	PKPTLSAQPS	PVVTSGGRVT
	LQCESQVAFG	GFILCKEGED	EHPQCLNSQP	HARGSSRAIF
	SVGPVSPNRR	WSHRCYGYDL	NSPYVWSSPS	DLLELLVPGV
	SKKPSLSVQP	GPVVAPGESL	$T\;L\;Q\;C\;V\;S\;D\;V\;G\;Y$	DRFVLYKEGE
	RDLRQLPGRQ	PQAGLSQANF	$T\;L\;G\;P\;V\;S\;R\;S\;Y\;G$	GQYRCYGAYN
	LSSEWSAPSD	PLDILITGQI	HGTPFISVQP	GPTVASGENV
	TLLCQSWRQF	HTFLLTKAGA	ADAPLRLRSI	HEYPKYQAEF
	PMSPVTSAHA	GTYRCYGSLN	SDPYLLSHPS	EPLELVVSGP
	SMGSSPPPTG	PISTPAGPED	QPLTPTGSDP	QSGLGRH
Appearance	Lyophilized powder.			
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.			
Endotoxin Level	<1 EU/μg, determined by LAL method.			
Reconsititution	It is not recommended to reconstitute to a concentration less than $100~\mu g/mL$ in $ddH_2O$ . For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).			
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.			
Storage & Stability				
Shipping	Room temperature in continental US; may vary elsewhere.			
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### **DESCRIPTION**

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#### 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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