LILRA4/ILT-7/CD85g Protein, Human (HEK293, His)

Cat. No.:	HY-P77441
Synonyms:	Leukocyte immunoglobulin-like receptor subfamily A member 4; Immunoglobulin-like transcript 7
Species:	Human
Source:	HEK293
Accession:	P59901-1 (E24-N446)
Gene ID:	23547
Molecular Weight:	Approximately 60-75 kDa due to the glycosylation

PROPERTIES

AA Sequence	E N L L K P I L W A E P G P V I T W H N P V T I W C Q G T L E A Q G Y R L D K E G N S M S R H I L K T L E S E N K V K L S I P S M M W E H A G R Y H C Y Y Q S P A G W S E P S D P L E L V V T A Y S R P T L S A L P S P V V T S G V N V T L R C A S R L G L G R F T L I E E G D H R L S W T L N S H Q H N H G K F Q A L F P M G P L T F S N R G T F R C Y G Y E N N T P Y V W S E P S D P L Q L L V S G V S R K P S L L T L Q G P V V T P G E N L T L Q C G S D V G Y I R Y T L Y K E G A D G L P Q R P G R Q P Q A G L S Q A N F T L S P V S R S Y G G Q Y R C Y G A H N V S S E W S A P S D P L D I L I A G Q I S D R P S L S V Q P G P T V T S G E K V T L L C Q S W D P M F T F L L T K E G A A H P P L R L R S M Y G A H K Y Q A E F P M S P V T S A H A G T Y R C Y G S R S S N P Y L L S H P S E P L E L V V S G A T E T L N P A Q K K S D S K T A P H L Q D Y T V E N
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human LILRA4 at 1 μg/mL (100 μL/well) can bind biotinylated Human ANGPTL7. The ED_{50} for this effect is 58.08 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
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. 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.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	LILRA4/ILT-7/CD85g protein functions as a coreceptor, exerting a pivotal role in limiting innate immune responses during viral infections, with signaling occurring through FCER1G. It acts as a negative regulator of TLR7 and TLR9 signaling cascades, demonstrated by its ability to down-regulate the production of IFNA1, IFNA2, IFNA4, IFNB1, and TNF in plasmacytoid dendritic cells exposed to influenza virus or CpG dinucleotides. Additionally, LILRA4/ILT-7/CD85g negatively modulates interferon production in response to interaction with BST2 on HIV-1 infected cells. The protein activates a signaling cascade in conjunction with FCER1G, leading to the phosphorylation of Src family and Syk kinases and subsequent mobilization of intracellular Ca(2+). Notably, LILRA4/ILT-7/CD85g does not interfere with the differentiation of plasmacytoid dendritic cells into antigen-presenting cells. The interaction between LILRA4/ILT-7/CD85g and FCER1G stabilizes the expression of both proteins at the cell membrane, emphasizing its crucial regulatory role in the innate immune response to viral pathogens.

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