CD300LF Protein, Human (His)

Cat. No.:	HY-P71595
Synonyms:	CD300 antigen like family member; CD300 antigen-like family member F; CD300 molecule like family member f; CD300f; CD300LF; CLM; CLM-1; CLM1; CMRF35-like molecule 1; IGSF; IgSF13; Inhibitory receptor IREM1; IREM; IREM-1; IREM1; Nepmucin; NK inhibitory receptor; NKIR; TREM
Species:	Human
Source:	E. coli
Accession:	Q8TDQ1 (20T-156S)
Gene ID:	146722
Molecular Weight:	Approximately 21 kDa

PROPERTIES

AA Sequence	T Q I T G P T T V N G L E R G S L T V Q C V Y R S G W E T Y L K W W C R G A I W R D C K I L V K T S G S E Q E V K R D R V S I K D N Q K N R T F T V T M E D L M K T D A D T Y W C G I E K T G N D L G V T V Q V T I D P A P V T Q E E T S S S P T L T G H H L D N R H K L L K L S
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
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	CD300LF protein serves as a multifaceted regulator within the immune system, acting as an inhibitory receptor for myeloid cells and mast cells. It plays a pivotal role in immune homeostasis by positively regulating the phagocytosis of apoptotic cells, or efferocytosis, through recognition and binding to phosphatidylserine (PS) on the surface of apoptotic cells. CD300LF also functions as a negative regulator of Fc epsilon receptor-dependent mast cell activation and allergic responses by binding to ceramide and sphingomyelin. Furthermore, it may act as a coreceptor for interleukin 4 (IL-4), enhancing IL-4- and IL-13-induced signaling (By similarity). CD300LF negatively regulates Toll-like receptor (TLR) signaling mediated by MYD88 and TRIF through the activation of phosphatases PTPN6/SHP-1 and PTPN11/SHP-2. Additionally, it inhibits osteoclast formation and induces macrophage cell death upon engagement (By similarity). The protein interacts with PTPN6/SHP-1 in a tyrosine phosphorylation-dependent manner and associates with IL4R (By similarity).

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

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