

Product Data Sheet

CD300LF Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P76793
Synonyms:	CMRF35-like molecule 1; CLM-1; CD300 antigen-like family member F; CD300f
Species:	Mouse
Source:	HEK293
Accession:	Q6SJQ7 (E20-S193)
Gene ID:	246746
Molecular Weight:	Approximately 45.3 kDa.

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PROPERTIES	
AA Sequence	EDPVTGPEEV SGQEQGSLTV QCRYTSGWKD YKKYWCQGVP QRSCKTLVET DASEQLVKKN RVSIRDNQRD FIFTVTMEDL RMSDAGIYWC GITKGGLDPM FKVTVNIGPA IQVPITVPTM PPITSTTTIF TVTTTVKETS MFPTLTSYYS DNGHGGGDSG GGEDGVGDGF LDLS
Biological Activity	Measured by its ability to inhibit anti-CD3 antibody induced IL-2 secretion by human T cells. The ED ₅₀ for this effect <11.3 μ g/mL, corresponding to a specific activity is >88 U/mg.
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 ₂ O. 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	The CD300LF protein, also known as the DEC-205/CD205 protein, serves as an endocytic receptor responsible for directing captured antigens to a specialized antigen-processing compartment. It has been observed to function as an inhibitory receptor for myeloid cells and mast cells, positively regulating the phagocytosis of apoptotic cells through recognition and binding of phosphatidylserine (PS) ligands on the surface of apoptotic cells. CD300LF plays a crucial role in maintaining

immune homeostasis by promoting macrophage-mediated efferocytosis while inhibiting dendritic cell-mediated efferocytosis. Additionally, it negatively regulates mast cell activation and allergic responses by binding to ceramide ligands. It may also act as a coreceptor for interleukin 4 (IL-4), enhancing IL-4 and IL-13-induced signaling. CD300LF negatively regulates Toll-like receptor signaling and inhibits osteoclast formation. Furthermore, it induces macrophage cell death upon engagement and acts as a functional receptor for murine norovirus (MNV), mediating viral entry and replication while determining MNV species tropism and rendering nonmurine mammalian cells susceptible to MNV infection.

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

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