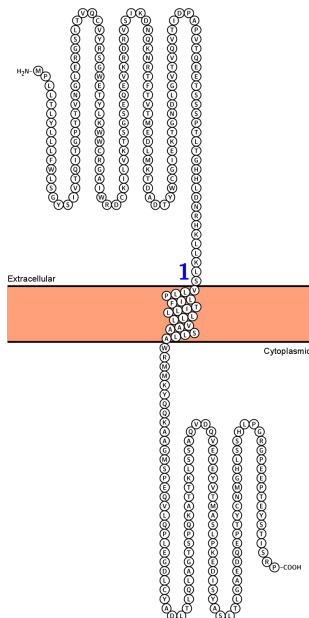


CMRF35-like molecule 1

Organism: Homo sapiens (Human) | **Gene names:** CD300LF, CD300F, CLM1, IGSF13, IREM1, NKIR, UNQ3105/PRO10111



Entry: Q8TDQ1

Mass: 32.335 Da

Transmembrane: 1

Subcellular location: Cell membrane {ECO:0000305},
Single-pass type I membrane protein {ECO:0000305}.

Cofactor: -

Extinction coefficient: 1.709

Isoelectric Point: 5.45

PubMed ID: 15184070, 15549731, 12975309,
14702039, 16625196, 15489334, 15340161,
22043923, 24035150, 17275839

Family: -

Function:

Acts as an inhibitory receptor for myeloid cells and mast cells (PubMed:15549731). Positively regulates the phagocytosis of apoptotic cells (efferocytosis) via phosphatidylserine (PS) recognition; recognizes and binds PS as a ligand which is expressed on the surface of apoptotic cells. Plays an important role in the maintenance of immune homeostasis, by promoting macrophage-mediated efferocytosis and by inhibiting dendritic cell-mediated efferocytosis (By similarity). Negatively regulates Fc epsilon receptor-dependent mast cell activation and allergic responses via binding to ceramide and sphingomyelin which act as ligands (PubMed:24035150). May act as a coreceptor for interleukin 4 (IL-4). Associates with and regulates IL-4 receptor alpha-mediated responses by augmenting IL-4- and IL-13-induced signaling (By similarity). Negatively regulates the Toll-like receptor (TLR) signaling mediated by MYD88 and TRIF through activation of PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:22043923). Inhibits osteoclast formation. Induces macrophage cell death upon engagement (By similarity). {ECO:0000250|UniProtKB:Q6SJQ7, ECO:0000269|PubMed:15549731, ECO:0000269|PubMed:22043923, ECO:0000269|PubMed:24035150}.

Data from experiment(s): Hek293 membrane pellets

DIBMA 10	No data	DIBMA 12	No data
DIBMA Glycerol	No data	DIBMA Glucosamine	No data
Amphipol 17	No data	Amphipol 18	No data
AASTY 6-45	No data	AASTY 11-45	No data
AASTY 6-50	No data	AASTY 11-50	No data
AASTY 6- 55	No data	AASTY 11- 55	No data
SMALP 502-E	No data	SMALP 140-I	No data
SMALP 300	No data	SMALP 200	No data
SMALP 140	No data	DDM	No data
DM	No data	LMNG	No data
Fos-12	No data	Digitonin-A	No data
RIPA	No data		

Data from experiment(s): Hek293 membrane pellets 1 %

DIBMA 10	No data	DIBMA 12	No data
DIBMA Glycerol	No data	DIBMA Glucosamine	No data
Amphipol 17	No data	Amphipol 18	No data
AASTY 6-45	No data	AASTY 11-45	No data
AASTY 6-50	No data	AASTY 11-50	No data
AASTY 6- 55	No data	AASTY 11- 55	No data
SMALP 502-E	No data	SMALP 140-I	No data
SMALP 300	No data	SMALP 200	No data
SMALP 140	No data	DDM	No data
DM	No data	LMNG	No data
Fos-12	No data	Digitonin-A	No data
RIPA	No data		

Involvement in disease:

-

Binding site:

-

Tissue specificity:

Highly expressed in spleen, peripheral blood leukocyte and monocyte, and lung. Weakly expressed in thymus, heart, brain, placenta, liver, skeletal muscle, kidney, pancreas, prostate, testis, ovary, small intestine or colon. Expressed selectively in monocytes and monocyte-related cells. {ECO:0000269|PubMed:15184070, ECO:0000269|PubMed:15549731}.

3D (X-ray crystallography):

X-ray crystallography (1)

Pharmaceutical use:

-

AS sequence:

MPLLTLYLLLFWLSGYSIVTQITGPTTVNGLERGLTVQCVYRSGWETYLKWWCRGAIWRDCKILVKTSGSEQEVKRDRVSIKDN
QKNRTFTVTMEDLMKTDADTYWCGIEKTGNDLGVTQVTIDPAPVTQEETSSSPTLTGHHLDNRHKLLKLSVLLPLIFTILLLLLV
AASLLAWRMMKYQQKAAGMSPEQVLQPLEGDLCYADTLQLAGTSPQKATTKLSSAQVDQVEVEYVTMASLPKEDISYASLTL
GAEDQEPTYCNMGHLSSHLPGRGPEEPTEYSTISRP

Creditnotes:

The protein visualizations are generated with the help of Protter:

Omasits, U., Ahrens, C.H., MÃ¼ller, S., Wollscheid, B. "Protter: interactive protein feature visualization and integration with experimental proteomic data". *Bioinformatics*. 2014 Mar 15; **30**(6):884-6. doi: 10.1093/bioinformatics/btt607.

IP and extinction coefficients are gathered from Protparam by ExPASy:

Gasteiger, E., Hoogland, C., Gattiker, A., Duvaud, S., Wilkins, M.R., Appel, R.D., Bairoch, A. "Protein Identification and Analysis Tools on the ExPASy Server". (In) *John M. Walker (ed): The Proteomics Protocols Handbook*, Humana Press (2005). pp. 571-607

The basic knowledge is found on UniProt:

The UniProt Consortium. "UniProt: the universal protein knowledgebase in 2021". *Nucleic Acids Res.* **49**:D1 (2021)
