

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects recombinant human CD300c in direct ELISA. In direct ELISAs, no cross-reactivity with Human CD300a, CD300e, CD300LG and Mouse CD300c was detected
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 2799A
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	NS0-derived human CD300c protein Met29-Arg183 Accession # Q08708
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

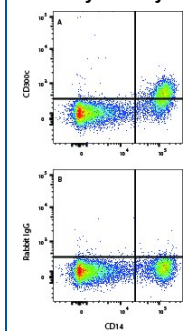
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.5 µg/10 <sup>6</sup> cells	Human PBMC

## DATA

### Flow Cytometry



#### Detection of CD300c in Human PBMC by Flow Cytometry.

Human PBMC were stained with (A) Rabbit Anti-Human CD300c Monoclonal Antibody (Catalog # MAB3256) or (B) Rabbit IgG Isotype Control Antibody (Catalog # MAB1050) followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111) and Mouse anti-Human CD14 Phycoerythrin-conjugated Monoclonal Antibody (Catalog # FAB3832P). Staining was performed using our Staining Membrane-associated Proteins protocol.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Leukocyte mono-Ig-like receptor 2 (LMIR2; also CMRF-35, CMRF35-A antigen, and CD300c antigen) is a 23 kDa (predicted) type I transmembrane glycoprotein that belongs to the immunoregulatory signaling (IRS) family of molecules within the immunoglobulin (Ig) superfamily (1-4). Human LMIR2 is synthesized as a 224 amino acid (aa) precursor that has a 20 aa signal sequence, a 163 aa extracellular domain (ECD), a 21 aa transmembrane region, and a 20 aa cytoplasmic tail (SwissProt # Q08708). The ECD contains an Ig-like V-type domain (aa's 22-128) and two N-linked glycosylation sites (aa's 90 and 99). Downstream of the Ig V-domain, the membrane proximal region of LMIR2 (aa 128-183) contains a high proportion of proline (18%), serine (20%) and threonine (13%) residues (1). The transmembrane segment contains a charged glutamic acid that contributes to cell activation (1-3). Human LMIR2 shares 52% aa sequence identity with the mouse LMIR2, which is also known as CLM4. Human LMIR2 is 90% identical to human LMIR1 within the Ig-like domain. LMIR2 is present on the surface of natural killer cells, granulocytes, most myeloid cells, dendritic cells, and a subpopulation of T and B lymphocytes (1, 3). Mouse LMIR2 has the characteristics of an activatory molecule capable of inducing cellular activation and effector function in most cells and macrophages (3). The ligand for LMIR2 is presently unknown.

### References:

1. Jackson, D.G. *et al.* (1992) Eur. J. Immunol. **22**:1157.
2. Clark, G.J. *et al.* (2001) Tissue Antigens **57**:415.
3. Clark, G.J. *et al.* (2002) J. Biol. Regul. Homeost. Agents **16**:233.
4. Daish, A. *et al.* (1993) Immunology **79**:55.