

TECHNICAL DATA SHEET

CyFlow™ CD300a Purified Anti-Hu; Clone MEM-260

REF BX538518

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD300a
Alternative Names	CMRF35H, IRp60, IGSF12, IRC1
Clone	MEM-260
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	HPB human acute lymphoid leukemia cell line

Specificity

The mouse monoclonal antibody MEM-260 recognizes CD300a antigen, a 60 kDa leukocyte transmembrane glycoprotein expressed on human granulocytes, monocytes, neutrophils, NK cells, mast cells and dendritic cells, 25% of circulating T cells and 15% of circulating B cells.

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Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Western blot

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH \approx 7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD300a (CMRF-35H, IRp60) is a non-MHC-specific inhibitory receptor of immunoglobulin superfamily, which contains three immunoreceptor tyrosine-based inhibitory motifs (ITIMs) that associate with SH2-containing phosphatases SHP-1 and SHP-2. CD300a is expressed on many cell types including T cells, NK cells, neutrophils, eosinophils or mast cells. Its triggering inhibits activating signals such as those of IL5, GM-CSF or eotaxin, as well as suppresses mast cell degranulation or NK cell cytotoxic activity.

References

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- Bachelet I, Munitz A, Moretta A, Moretta L, Levi-Schaffer F: The inhibitory receptor IRp60 (CD300a) is expressed and functional on human mast cells. *J Immunol.* 2005 Dec 15; 175(12):7989-95. < PMID: 16339535 >
- Bachelet I, Munitz A, Levi-Schaffer F: Abrogation of allergic reactions by a bispecific antibody fragment linking IgE to CD300a. *J Allergy Clin Immunol.* 2006 Jun; 117(6):1314-20. < PMID: 16750992 >

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- Dimasi N, Roessle M, Moran O, Candiano G, Svergun DI, Biassoni R: Molecular analysis and solution structure from small-angle X-ray scattering of the human natural killer inhibitory receptor IRp60 (CD300a). *Int J Biol Macromol.* 2007 Feb 20; 40(3):193-200. < PMID: 16949664 >
- Alvarez Y, Tang X, Coligan JE, Borrego F: The CD300a (IRp60) inhibitory receptor is rapidly up-regulated on human neutrophils in response to inflammatory stimuli and modulates CD32a (FcγRIIa) mediated signaling. *Mol Immunol.* 2008 Jan; 45(1):253-8. < PMID: 17588661 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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