



Antibodies

1P-501-T025

Monoclonal Antibody to CD300a Phycoerythrin (PE) conjugated (25 tests)

Clone:	MEM-260
Isotype:	Mouse IgG1
Specificity:	The antibody MEM-260 reacts with CD300a, 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.
Immunogen:	HPB human acute lymphoid leukemia cell line
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.5 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	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.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

References:

*Cantoni C, Bottino C, Augugliaro R, Morelli L, Marcenaro E, Castriconi R, Vitale M, Pende D, Sivori S, Millo R, Biassoni R, Moretta L, Moretta A: Molecular and functional characterization of IRp60, a member of the immunoglobulin superfamily that functions as an inhibitory receptor in human NK cells. *Eur J Immunol.* 1999 Oct;29(10):3148-59.

*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.

*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.

*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.

*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 (FcgammaRIIa) mediated signaling. *Mol Immunol.* 2008 Jan;45(1):253-8.

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