

1P-501-T100

Monoclonal Antibody to CD300a Phycoerythrin (PE) conjugated (100 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.
Regulatory Status:	RUO
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 stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
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.
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 (2 ml) is sufficient for 100 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.
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- *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.
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EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz