



Antibodies

11-501-C100

Monoclonal Antibody to CD300a Purified Antibody (0.1 mg)

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
Application:	Flow Cytometry Recommended dilution: 2 µg/ml Western Blotting Positive material: HPB cell line Negative material: JURKAT human cell line, RAJI human cell line Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% laurylmaltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell debris. Mix lysate with non-reducing SDS-PAGE sample buffer. Application note: Non-reducing conditions.
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
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.
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- *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.
- *Sabato V, Verweij MM, Bridts CH, Levi-Schaffer F, Gibbs BF, De Clerck LS, Schiavino D, Ebo DG: CD300a is expressed on human basophils and seems to inhibit IgE/FcγRI-dependent anaphylactic degranulation. *Cytometry B Clin Cytom.* 2012 May;82(3):132-8.
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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