EXBIO Antibodies

PRODUCT DATA SHEET

1P-139-T100

# Monoclonal Antibody to CD89 Phycoerythrin (PE) conjugated (100 tests)

**Clone:** A59

**Isotype:** Mouse IgG1

**Specificity:** The mouse monoclonal antibody A59 recognizes CD89, a 55-100 kDa glycoprotein serving as a receptor for IgA and expressed mainly on granulocytes, monocytes and macrophages.
HLDA WS Code V MR30

**Regulatory Status:** RUO

**Immunogen:** Ag8.653 myeloma cells

**Species Reactivity:** Human, Non-Human Primates

**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 10 µl reagent / 100 µl of whole blood or $10^6$ cells in a suspension.
The content of a vial (1 ml) is sufficient for 100 tests.

**Expiration:** See vial label

**Lot Number:** See vial label

**Background:** CD89 (Fc-alpha-R) is a type I transmembrane glycoprotein serving as a receptor for IgA. Soluble CD89 is detectable in serum and retains its IgA binding capacity. For signal transduction the association with FcR gamma chain homodimers is needed. CD89 is expressed on granulocytes, monocytes, macrophages, dendritic cells and myeloid cell lines. Its expression is upregulated in presence of IgA immune complexes, stimulators (such as LPS, PMA), TNF alpha, IL1 beta or GM-CSF, and it is downregulated in presence of TGF beta and suramin. Binding of IgA-opsonized targets to CD89 leads to phagocytic and cytotoxic processes of the immunologic defense.

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

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**References:**

*Schenk M, Bouchon A, Seibold F, Mueller C: TREM-1--expressing intestinal macrophages crucially amplify chronic inflammation in experimental colitis and inflammatory bowel diseases. J Clin Invest. 2007 Oct;117(10):3097-106.

*Barratt J, Greer MR, Pawluczyk IZ, Allen AC, Bailey EM, Buck KS, Feehally J: Identification of a novel Fcalpha receptor expressed by human mesangial cells. Kidney Int. 2000 May;57(5):1936-48.

*van Egmond M, van Spriel AB, Vermeulen H, Huls G, van Garderen E, van de Winkel JG: Enhancement of polymorphonuclear cell-mediated tumor cell killing on simultaneous engagement of fcgammaRI (CD64) and fcalphaRI (CD89). Cancer Res. 2001 May 15;61(10):4055-60.

*Honorio-França AC, Launay P, Carneiro-Sampaio MM, Monteiro RC: Colostral neutrophils express Fc alpha receptors (CD89) lacking gamma chain association and mediate noninflammatory properties of secretory IgA. J Leukoc Biol. 2001 Feb;69(2):289-96.

*Wu J, Ji C, Xie F, Langefeld CD, Qian K, Gibson AW, Edberg JC, Kimberly RP: FcalphaRI (CD89) alleles determine the proinflammatory potential of serum IgA. J Immunol. 2007 Mar 15;178(6):3973-82.

*Rogers KA, Scinicariello F, Attanasio R: Identification and characterization of macaque CD89 (immunoglobulin A Fc receptor). Immunology. 2004 Oct;113(2):178-86.

*van Dijk TB, Bracke M, Caldenhoven E, Raaijmakers JA, Lammers JW, Koenderman L, de Groot RP: Cloning and characterization of Fc alpha Rb, a novel Fc alpha receptor (CD89) isoform expressed in eosinophils and neutrophils. Blood. 1996 Dec 1;88(11):4229-38.





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