EXBIO Antibodies

PRODUCT DATA SHEET

1P-310-T025

Monoclonal Antibody to CD72 Phycoerythrin (PE) conjugated (25 tests)

Clone: 3F3

Isotype: Mouse IgG2b

Specificity: The antibody 3F3 reacts with CD72, a 39-43 kDa type II membrane glycoprotein (C-type lectin family). CD72 is a pan-B cell marker expressed throughout the B lymphocytes diferentiation with the exception of plasma cells; it is also present on follicular dendritic cells.
HLDA V; WS Code B CD72.5
HLDA VI; WS Code B CD72.1
HLDA VI; WS Code 6 BP 84

Immunogen: Normal human lymphocytes from a lymph node.

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: CD72 is a transmembrane glycoprotein expressed as a homodimer especially in B cells, but also in other antigen presenting cells such as dendritic cells and macrophages. Through one of its immunoreceptor tyrosine-based inhibitory motives (ITIMs), CD72 interacts with tyrosine phosphatase SHP-1, thereby suppressing B cell responsiveness. Binding of CD72 with its ligand CD100 (Sema4D) prevents BCR association and phosphorylation of CD72 and results in dissociation of SHP-1 from CD72, thus enables B cell activation.

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

EXBIO Praha | Nad Safinou II 341 | 252 42 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz

References:

*Kumanogoh A, Watanabe C, Lee I, Wang X, Shi W, Araki H, Hirata H, Iwahori K, Uchida J, Yasui T, Matsumoto M, Yoshida K, Yakura H, Pan C, Parnes JR, Kikutani H: Identification of CD72 as a lymphocyte receptor for the class IV semaphorin CD100: a novel mechanism for regulating B cell signaling. Immunity. 2000 Nov;13(5):621-31.

*Kumanogoh A, Kikutani H: The CD100-CD72 interaction: a novel mechanism of immune regulation. Trends Immunol. 2001 Dec;22(12):670-6.

*Kumanogoh A, Shikina T, Watanabe C, Takegahara N, Suzuki K, Yamamoto M, Takamatsu H, Prasad DV, Mizui M, Toyofuku T, Tamura M, Watanabe D, Parnes JR, Kikutani H. Requirement for CD100-CD72 interactions in fine-tuning of B-cell antigen receptor signaling and homeostatic maintenance of the B-cell compartment. Int Immunol. 2005 Oct;17(10):1277-82.

*Mizrahi S, Markel G, Porgador A, Bushkin Y, Mandelboim O: CD100 on NK cells enhance IFNgamma secretion and killing of target cells expressing CD72. PLoS ONE. 2007 Sep 5;2(9):e818.

*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).

*Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

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