



A4-310-T100

## Monoclonal Antibody to CD72 Alexa Fluor® 488 conjugated (100 tests)

|                             |  |
|-----------------------------|--|
| <b>Clone:</b>               | 3F3  |
| <b>Isotype:</b>             | Mouse IgG2b  |
| <b>Specificity:</b>         | <p>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 differentiation with the exception of plasma cells; it is also present on follicular dendritic cells.</p> <p><b>HLDA V; WS Code B CD72.5</b><br/>HLDA VI; WS Code B CD72.1<br/>HLDA VI; WS Code 6 BP 84</p>   |
| <b>Immunogen:</b>           | Normal human lymphocytes from a lymph node.  |
| <b>Species Reactivity:</b>  | Human  |
| <b>Preparation:</b>         | The purified antibody is conjugated with Alexa Fluor 488 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.   |
| <b>Storage Buffer:</b>      | 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.  |
| <b>Storage / Stability:</b> | <p>Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light.</p> <p>Do not use after expiration date stamped on vial label.</p> <p>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.</p>   |
| <b>Usage:</b>               | <p>The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10<sup>6</sup> cells in a suspension.</p> <p>The content of a vial (0.4 ml) is sufficient for 100 tests.</p>   |
| <b>Expiration:</b>          | See vial label   |
| <b>Lot Number:</b>          | See vial label   |
| <b>Background:</b>          | <p><b>CD72</b> 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.</p> |

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

**Antibodies****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.

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\*Mizrahi S, Markel G, Porgador A, Bushkin Y, Mandelboim O: CD100 on NK cells enhance IFN $\gamma$  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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