

A6-310-T025

Monoclonal Antibody to CD72 Alexa Fluor® 647 conjugated (25 tests)

Clone:	3F3
Isotype:	Mouse IgG2b
Specificity:	<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>HLDA V; WS Code B CD72.5 HLDA VI; WS Code B CD72.1 HLDA VI; WS Code 6 BP 84</p>
Immunogen:	Normal human lymphocytes from a lymph node.
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with Alexa Fluor® 647 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:	<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>
Usage:	<p>The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.</p> <p>The content of a vial (0.1 ml) is sufficient for 25 tests.</p>
Expiration:	See vial label
Lot Number:	See vial label
Background:	<p>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.</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.

*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 IFN γ 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).

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

This product is provided under an agreement between Molecular Probes, Inc. (a wholly owned subsidiary of Invitrogen Corporation), and Exbio Praha, a.s., and the manufacture, use, sale or import of this product may be subject to one or more U.S. patents, pending applications, and corresponding non-U.S. equivalents, owned by Molecular Probes, Inc. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity), including use in flow cytometry that does not utilize a bead based array, but excluding use in combination with microarrays or High Content Screening. The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing; (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research. For information on purchasing a license to this product for any other use, contact Molecular Probes, Inc., Business Development, 29851 Willow Creek Road, Eugene, OR 97402, USA, Tel: (541) 465-8300. Fax: (541) 335-0504.

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: +420 261 090 664 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz