

1B-310-C100

Monoclonal Antibody to CD72 Biotin conjugated (0.1 mg)

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 Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
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.
Usage:	<p>Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry.</p> <p>Suggested working dilution is 1:300. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.</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).

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