

TECHNICAL DATA SHEET

CyFlow™ MHCII FITC Anti-Ms; Clone M5/114

REF BJ649436

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	MHC Class II
Alternative Names	—
Clone	M5/114
Clonality	monoclonal
Format	FITC
Host / Isotype	Rat / IgG2b
Species Reactivity	Mouse
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [0.5 mg/ml]
Immunogen	Activated C57BL/6 mouse spleen cells

Specificity

The rat monoclonal antibody M5/114 recognizes mouse MHC class II glycoproteins (MHCII). It recognizes a shared determinant on I-Ab, I-Ad, I-Aq, and I-Ed, I-Ek alloantigens, but it does not react with I-Af, I-Ak,

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

I-As. This antibody can inhibit I-A-restricted T cell responses of the H-2b, H-2d, H-2q, H-2u but not H-2f, H-2k, H-2s haplotypes.

Application

The reagent is designed for Flow Cytometry analysis. Suggested working usage is 4 µg/ml. Indicated dilution is recommended starting point for use of this product, but working concentrations should be validated by the investigator.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

MHC (major histocompatibility complex) class II (MHCII) molecules are transmembrane glycoproteins expressed on the surface of professional antigen-presenting cells, such as macrophages, dendritic cells and B cells. Before their exposition on the cell surface, the MHC class II molecules react with endocytosed exogenous antigens, which are then presented to the T cells. The antigen-binding groove between MHC class II α and β chain is open at both ends and is 15-24 amino acid residues long.

References

- Bhattacharya A, Dorf ME, Springer TA: A shared alloantigenic determinant on Ia antigens encoded by the I-A and I-E subregions: evidence for I region gene duplication. J Immunol. 1981 Dec; 127(6):2488-95. < PMID: 6170707 >
- Viville S, Neefjes J, Lotteau V, Dierich A, Lemeur M, Ploegh H, Benoist C, Mathis D: Mice lacking the MHC class II-associated invariant chain. Cell. 1993 Feb 26; 72(4):635-48. < PMID: 7679955 >
- De Souza Leao S, Lang T, Prina E, Hellio R, Antoine JC: Intracellular Leishmania amazonensis amastigotes internalize and degrade MHC class II molecules of their host cells. J Cell Sci. 1995 Oct; 108 (10):3219-31. < PMID: 7593283 >

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- Clausen BE, Waldburger JM, Schwenk F, Barras E, Mach B, Rajewsky K, Förster I, Reith W: Residual MHC class II expression on mature dendritic cells and activated B cells in RFX5-deficient mice. *Immunity*. 1998 Feb; 8(2):143-55. < PMID: 9491996 >
- Kleijmeer M, Ramm G, Schuurhuis D, Griffith J, Rescigno M, Ricciardi-Castagnoli P, Rudensky AY, Ossendorp F, Melief CJ, Stoorvogel W, Geuze HJ: Reorganization of multivesicular bodies regulates MHC class II antigen presentation by dendritic cells. *J Cell Biol*. 2001 Oct 1; 155(1):53-63. < PMID: 11581285 >
- Zang W, Kalache S, Lin M, Schroppel B, Murphy B: MHC Class II-mediated apoptosis by a nonpolymorphic MHC Class II peptide proceeds by activation of protein kinase C. *J Am Soc Nephrol*. 2005 Dec; 16(12):3661-8. < PMID: 16221866 >
- Beers C, Burich A, Kleijmeer MJ, Griffith JM, Wong P, Rudensky AY: Cathepsin S controls MHC class II-mediated antigen presentation by epithelial cells in vivo. *J Immunol*. 2005 Feb 1; 174(3):1205-12. < PMID: 15661874 >
- Kuwano Y, Prazma CM, Yazawa N, Watanabe R, Ishiura N, Kumanogoh A, Okochi H, Tamaki K, Fujimoto M, Tedder TF: CD83 influences cell-surface MHC class II expression on B cells and other antigen-presenting cells. *Int Immunol*. 2007 Aug; 19(8):977-92. < PMID: 17804692 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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