Antibodies

Anti-Mouse MHC Class II (I-A/I-E) Antibody, Clone M5/114.15.2, FITC

Rat monoclonal IgG2b antibody against mouse MHC Class II (I-A/I-E), FITC-conjugated

Catalog #100-0294	25 µg	0.5 mg/mL
Catalog #100-0295	100 µg	0.5 mg/mL
Catalog #100-0296	500 µg	0.5 mg/mL

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Product Description

The M5/114.15.2 (M5/114) antibody reacts with an extracellular epitope on the mouse major histocompatibility complex class II receptor (MHC-II). MHC-II is a heterodimeric transmembrane glycoprotein comprising an α subunit associated non-covalently with a β subunit. In mice, MHC-II complexes are designated I-A and I-E and comprise Aα/Aβ and Eα/Eβ heterodimers, respectively. Together with the CD3/T cell receptor (TCR) complex and CD4 molecules, MHC-II mediates a critical function in presenting peptides generated from hydrolysis of exogenous antigens by antigen-presenting cells to CD4+ T (helper) cells, thereby either suppressing or inducing an immune response to the peptides. The M5/114.15.2 antibody recognizes a polymorphic determinant shared by the I-Ab, I-Ad, I-Aq, I-Ed, and I-Ek (but not I-Af, I-Ak or I-As) MHC class II alloantigens expressed on B cells, dendritic cells, macrophages, monocytes and activated T cells of mice carrying the H-2b, d, p, q, r and u haplotypes (but not haplotypes H-2f or H-2s). The M5/114 antibody reportedly inhibits I-A-restricted responses by T cells of the H-2b, d, q and u (but not H-2f, k or s) haplotypes. It does not react with cells from NOD (H-2g7) mice.

Target Antigen Name:	I-Ab, I-Ad, I-Aq, I-Ed, and I-Ek
Alternative Names:	IA, I-A, IA/IE, I-A/E, MHC class II, MHC-II
Gene ID:	14961/14969
Species Reactivity:	Mouse
Host Species:	Rat (BN x LEW)
Clonality:	Monoclonal
Clone:	M5/114.15.2 (M5/114)
Isotype:	IgG2b, kappa
Immunogen:	Mixture of activated C57BL/6 mouse splenocytes and anti-irradiated BN rat lymphoma-derived lymphocytes
Conjugate:	FITC (Fluorescein isothiocyanate)

Applications

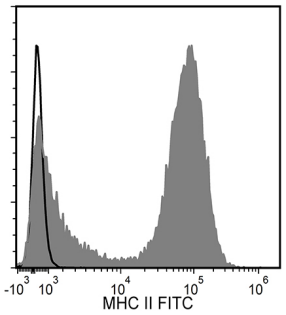
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ Mouse CD11c Positive Selection Kit II (Catalog #18780).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin
Purification:	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this reagent is ≤ 0.25 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse MHC Class II (I-A/I-E) Antibody, Clone M5/114.15.2, FITC (filled histogram) or a rat IgG2b, kappa FITC isotype control antibody (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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