

Monoclonal Antibody to MHC Class II (I-A k,b,d,q,r) - FITC

Catalog No.:	BM4094F
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	MHC Class II antigens are heterodimers consisting of one alpha chain (31-34kD) and one beta chain (26-29kD). The family of monoclonal antibodies (ER-TR 3, ER-TR 2, ER-TR 1) detect MHC class II antigens encoded by the murine Ia region of the H-2 complex, corresponding to the human HLA-DR region. MHC Class II antigens are a valuable tool for studying T helper cell interaction with class II positive antigen presenting cells (dendritic cells, B cells, macrophages) and offer new possibilities for studying the development of T helper cells since these antibodies also stain stromal cells in the thymus. MHC Class II antigens are also inducible on a number of other cells (endothelium and epithelial cells) by interferon gamma.
Host / Isotype:	Rat / IgG2b
Clone:	ER-TR3
Immunogen:	Murine thymic reticulum. Remarks: Antigen / Epitope: MHC Class II antigens are heterodimers consisting of one alpha-chain (31-34 kDa) and one beta-chain (26-29 kDa). The epitope has not been further characterized.
Format:	State: Liquid purified Ig fraction. Purification: Affinity Chromatography. Buffer System: Phosphate buffered saline pH 7.2 (PBS) containing 10 mg/ml BSA as a stabilizer and 0.09% Sodium Azide as a preservative Label: FITC
Applications:	Flow Cytometry: 10 µg/ml (Use 10 µl of 1/10 diluted antibody to label 10e6 cells). <i>Suggested Positive Control:</i> mouse spleen. Has been described to work in FACS. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody is specific for cells expressing MHC class II antigens. Antigen, epitope: MHC Class II antigens are heterodimers consisting of one alpha-chain (31-34 kD) and one beta-chain (26-29 kD). Antigen Distribution: Isolated Cells: The antigen is found on dendritic cells, B-cells and macrophages. The level of antigen detected by ER-TR1, ER-TR 2 and ER-TR 3 differs from strain to strain (see table below).

For research and in vitro use only. Not for diagnostic or therapeutic work.

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Tissue Sections: The antigen is found on B-cells, interdigitating cells and macrophages in peripheral lymphoid organs but is absent from T-cells. It is also expressed as a fine reticular pattern on stromal thymic cells of the cortex and as a confluent pattern on stromal thymic cells of the medulla.

Monoclonal antibody ER-TR 3 is one member of a family of monoclonal antibodies (ER-TR 3, ER-TR 2, ER-TR 1) which detect MHC class II antigens encoded by the murine Ia region of the H-2 complex, corresponding to the human HLA-DR region. They are valuable tools for studying T helper cell interaction with class II positive antigen presenting cells (dendritic cells, B-cells, macrophages). These antibodies also offer new possibilities for studying the development of T helper cells since they also stain stromal cells in the thymus.

Species Reactivity: **Tested:** Mouse (Cells expressing MHC class II antigens. Does not work in Human).

Storage: Store the antibody undiluted at 2-8°C.
Shelf life: Six months from despatch.

General References: 1. Van Vliet, E., et al.: Monoclonal Antibodies to Stromal Cell Types of the Mouse Thymus. Eur. J. Immunol. 14, 524-529 (1984).
2. Van Vliet, E., et al.: Stromal Cell Types in the Developing Thymus of the Normal and Nude Mouse Embryo. Eur. J. Immunol. 15, 675-681 (1985).

Pictures:

Strain	Haplotype							Clone		
	K	A	B	J	E	C	D	ER-TR1	ER-TR2	ER-TR3
C3H/HeJ	k	k	k	k	k	k	k	48*	46	46
AKR	k	k	k	k	k	k	k	54	52	54
B10.BR	k	k	k	k	k	k	k	59	58	62
B10.ScSn	b	b	b	b	b	b	b	4	5	50
Balb/b	b	b	b	b	b	b	b	4	3	39
B10.D2/n	d	d	d	d	d	d	d	56	5	54
Balb/c	d	d	d	d	d	d	d	45	3	44
DBA/2	d	d	d	d	d	d	d	27	4	47
B10.G	q	q	q	q	q	q	q	53	4	46
DBA/1	q	q	q	q	q	q	q	52	6	54
SWR/J	q	q	q	q	q	q	q	49	3	49
A.SW	s	s	s	s	s	s	s	4	20	6
B10.M	f	f	f	f	f	f	f	4	5	3
B10.RIII	r	r	r	r	r	r	r	39	39	40
B10.AQR	q	k	k	k	k	d	d	52	52	51
B10.T(6R)	q	q	q	q	q	q	d	50	3	52
A.TL	s	k	k	k	k	k	d	29	52	51
A.TH	s	s	s	s	s	s	d	5	49	7

* Percentage of labelled cells, determined by FACS analysis of spleen cell suspensions
Distribution of ER-TR 1, ER-TR 2 and ER-TR 3 among mouse strains with independent and recombinant haplotypes*

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