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## **FITC Labeled Monoclonal Antibody To Mouse MHC Class II**

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.

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**Product number: T-2117**

**Clone: ER-TR3**

**Lot: 03PF1437**

### **TECHNICAL AND ANALYTICAL CHARACTERISTICS:**

**Host species, subclass:** Rat IgG2b

**Quantity:** 100µg

**Format:** Affinity purified, FITC labelled, liquid

Supplied as 1ml solution. This stock solution contains 0.1mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 10mg/ml bovine serum albumin (BSA) as a stabilizer and 0.09% sodium azide as a preservative.

**Stability:** Original vial: 6 months at 4° - 8°C

**Applications:** Has been described to work in FACS.

#### **Approximate working dilution:**

Optimal dilutions should be determined by the end user.

Suggested positive control: mouse spleen.

Please see [www.bma.ch](http://www.bma.ch) for protocols and general information.

**Immunogen:** Murine thymic reticulum.

**Antigen, epitope:** MHC Class II antigens are heterodimers consisting of one  $\alpha$ -chain (31-34kD) and one  $\beta$ -chain (26-29kD).

**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).

**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.

**Distribution of ER-TR 1, ER-TR 2 and ER-TR 3 among mouse strains with independent and recombinant haplotypes\***

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

**Specificity:**

**Mouse:** cells expressing MHC class II antigens

**Other:** negative on human, other unknown

**Selected references**

Van Vliet, E., et al.: Monoclonal Antibodies to Stromal Cell Types of the Mouse Thymus. *Eur. J. Immunol.* 14, 524-529 (1984)

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)

For in vitro research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.