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Monoclonal Antibody To Mouse MHC Class I

Marker For Haplotypes H-2D^{d}, H-2^{b,p,q}

Monoclonal antibody ER-HR52 is useful for detecting MHC class I antigens. It is therefore a valuable tool for studying cytotoxic T-cell interactions with class I positive antigen presenting cells

Product number: T-2105
Clone: ER-HR52
Lot: 04PO1006
TECHNICAL AND ANALYTICAL CHARACTERISTICS:

Host species, subclass:	Rat IgG2a
Quantity:	100µg
Format:	Affinity purified, lyophilized
	Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.2mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.09% sodium azide as a preservative.
Stability:	Original vial: 1 year at 4° - 8°C
	Stock solution: 1 year at -20°C. Avoid repeated thawing and freezing.
Applications:	Tested for immunohistochemistry (IHC); has been described to work in FACS.
	Approximate working dilution for IHC: Frozen sections: 1µg/ml (1:200) Paraffin sections: does not react on routinely processed paraffin sections. Optimal dilutions should be determined by the end user.
	Suggested positive control: Mouse spleen.
	Please see **www.bma.ch** for protocols and general information.
Immunogen:	Mouse macrophage precursor cells.
Antigen, epitope:	MHC class I antigens are heterodimers consisting of one α chain (44kDa) with β_2-microglobulin (11.5 kDa). The epitope recognized by ER-HR52 is resistant to 0.05% glutaraldehyde, 1% paraformaldehyde and acetone.

Antigen distribution:

Isolated cells: The antigen is expressed by all somatic cells at varying levels. ER-HR 52 detects MHC class I antigens of various haplotypes (see below).

Tissue sections: The antigen is found on all somatic cells in all organs sections though at varying levels. Lymphocytes are highly positive, whereas fibroblasts and neurons show only a low level of antigen expression.

ER-MP42 and ER-HR52 anti H-2 monoclonal antibody reactivity

Mouse Strain	Haplotype	Alleles at H-2 loci				ER-MP42 binding	ER-HR52 binding
		K	I-L	I-E	D		
Balb/c	d	d	d	d	d	++	++
DBA/2	d	d	d	d	d	++	++
C3H/Law	k	k	k	k	k	++	-
CBA	b	b	b	b	b	-	++
C57Bl/6	b	b	b	b	b	-	++
B10	b	b	b	b	b	-	++
B10.D2	d	d	d	d	d	++	+++
B10.M	f	f	f	f	f	-	±
B10.BR	k	k	k	k	k	++	-
B10.Y	p	p	p	p	p	±	++
B10.Q	q	q	q	q	q	++	++
B10.RIII	r	r	r	r	r	±	±
B10.S	s	s	s	s	s	++	±
B10.SM	v	v	v	v	v	++	-
B10.A	a	k	k	k	d	++	+
B10.OH	o2	d	d	d	k	++	+
B10.A(4R)	h4	k	k	b	b	+	++
B10.AKM	m	k	k	k	q	++	++
B10.MBR	bq1	b	k	k	q	+	+
B10.A(5R)	i5	b	b	k	d	++	+
B10.HTG	g	d	d	d	b	-	++
AKR.L	oz2	b	k	k	k	+	-
A.TH	t2	s	s	s	d	++	+
CAS.1	w23	w23	w23	w23	w23	-	±
CAS.2	w17	w17	w17	w17	w3	-	±
STA.62	w27	w27	b	w27	w27	-	±
WR.7	w7	w7	w7	w7	k	±	-
WOA.105	w10	v	v	v	w10	++	-
BUA.19	w22	w16	w16	w16	k	±	-
BUA.1	w16	w16	w16	w16	w16	±	++

Specificity:

Mouse: cells expressing MHC class I antigens.
Other species: not tested.

Selected references

Klein, J.: Natural history of the histocompatibility complex. Wiley, New York (1986)

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