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BM4093 Monoclonal Antibody to MHC Class I H-2 (b,d,q,h4,m,w16) - Purified

Quantity:	0.1 mg
Concentration:	0.2 mg/ml
Host / Isotype:	Rat / IgG2a
Recommended Isotype Controls:	SM15P, SM15PX
Clone:	ER-HR52
Immunogen:	Mouse macrophage precursor cells **Remarks:** MHC class I antigens are heterodimers consisting of one alpha chain (44 kDa) with beta2-microglobulin (11.5 kDa). The epitope recognized by ER-HR52 is resistant to 0.05% glutaraldehyde, 1% paraformaldehyde and acetone.
Format:	**State:** Lyophilized purified IgG fraction **Purification:** Affinity Chromatography. **Buffer System:** PBS, pH 7.2 containing 5 mg/ml BSA as a stabilizer and 0.09% Sodium Azide as a preservative **Reconstitution:** Restore by adding 0.5 ml distilled water.
Applications:	**Immunohistochemistry on Frozen Sections:** 1 µg/ml (1/200). *Recommended Positive Control:* Mouse Spleen. Does not react on routinely processed Paraffin Sections. 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:	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. The antigen is expressed by all somatic cells at varying levels. ER-HR52 detects MHC class I antigens of various haplotypes (see below). 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. **Species:** Mouse. Other species not tested.
Storage:	Store the original vial at 2-8°C and the reconstituted stock solution (in aliquots) at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Klein: Natural history of the major histocompatibility complex. Wiley, New York (1986).

Protocols:

Protocol with Frozen, ice-cold Acetone-Fixed Sections:
The whole procedure is performed at room temperature
1. Wash in PBS
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti rat IgG (H+L) minimal-cross reaction to mouse) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum.

Pictures:

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	±	++