

Datasheet: MCA2398
BATCH NUMBER 154514

Description:	RAT ANTI MOUSE MHC CLASS I H-2b/d/p/q/w16
Specificity:	MHC CLASS I H-2b/d/p/q/w16
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	ER-HR52
Isotype:	IgG2a
Quantity:	0.25 mg

## **Product Details**

#### **Applications**

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	•			1/50 - 1/200
Immunohistology - Frozen	•			
Immunohistology - Paraffin			•	
ELISA			•	
Immunoprecipitation			•	
Western Blotting			•	
Immunofluorescence				

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Mouse	
Product Form	Purified IgG - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein G supernatant	From tissue culture
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	0.09% Sodium Azide	

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Adherent FI (CBAXBL) bone marrow stromal cells.
RRID	AB_872030
Fusion Partners	Cells from immunised rats were fused with cells of the mouse P3-X63-Ag8.563 myeloma cell line.
Specificity	Rat anti Mouse MHC Class I H-2b/D/P/Q/w16 antibody, clone ER-HR52 recognizes a polymorphic epitope present on murine MHC class I molecules, which are expressed at varying levels on the majority of nucleated cells.
	Clone ER-HR52 specifically recognizes mouse strains with the haplotypes H-2b, w16 and H-2d, p, q. Mouse strains with the haplotypes H-2f, r, s, w17, w23, w27 show weak reactivity with this antibody.
	The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In mice, this complex is referred to as the histocompatibility 2 (H-2) region.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
Flow Cytometry References	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.  1. Medana, I. <i>et al.</i> (2001) Transection of major histocompatibility complex class I-induced neurites by cytotoxic T lymphocytes. Am J Pathol. 159 (3): 809-15.  2. Lv, D. <i>et al.</i> (2015) Neuronal MHC Class I Expression Is Regulated by Activity Driven Calcium Signaling. PLoS One. 10 (8): e0135223.  3. Himoudi, N. <i>et al.</i> (2009) Migratory and antigen presentation functions of IFN-producing killer dendritic cells. Cancer Res. 69 (16): 6598-606.  4. Liu, J. <i>et al.</i> (2015) Spatial-Temporal Expression of Non-classical MHC Class I Molecules in the C57 Mouse Brain. Neurochem Res. 40 (7): 1487-96.  5. Liu, J. <i>et al.</i> (2013) The expression pattern of classical MHC class I molecules in the development of mouse central nervous system. Neurochem Res. 38 (2): 290-9.  6. Lv, D. <i>et al.</i> (2014) The similar expression pattern of MHC class I molecules in human and mouse cerebellar cortex. Neurochem Res. 39 (1): 180-6.  7. Sobue, A. <i>et al.</i> (2018) Astroglial major histocompatibility complex class I following immune activation leads to behavioral and neuropathological changes. Glia. Jan 30 [Epub ahead of print].
	<ol> <li>Medana, I. <i>et al.</i> (2001) Transection of major histocompatibility complex class I-induced neurites by cytotoxic T lymphocytes. <u>Am J Pathol. 159 (3): 809-15.</u></li> <li>Lv, D. <i>et al.</i> (2015) Neuronal MHC Class I Expression Is Regulated by Activity Driven Calcium Signaling. <u>PLoS One. 10 (8): e0135223.</u></li> <li>Himoudi, N. <i>et al.</i> (2009) Migratory and antigen presentation functions of IFN-producing killer dendritic cells. <u>Cancer Res. 69 (16): 6598-606.</u></li> <li>Liu, J. <i>et al.</i> (2015) Spatial-Temporal Expression of Non-classical MHC Class I Molecules in the C57 Mouse Brain. <u>Neurochem Res. 40 (7): 1487-96.</u></li> <li>Liu, J. <i>et al.</i> (2013) The expression pattern of classical MHC class I molecules in the development of mouse central nervous system. <u>Neurochem Res. 38 (2): 290-9.</u></li> <li>Lv, D. <i>et al.</i> (2014) The similar expression pattern of MHC class I molecules in human and mouse cerebellar cortex. <u>Neurochem Res. 39 (1): 180-6.</u></li> <li>Sobue, A. <i>et al.</i> (2018) Astroglial major histocompatibility complex class I following immune activation leads to behavioral and neuropathological changes. <u>Glia. Jan 30 [Epub</u></li> </ol>
References	1. Medana, I. <i>et al.</i> (2001) Transection of major histocompatibility complex class I-induced neurites by cytotoxic T lymphocytes. Am J Pathol. 159 (3): 809-15.  2. Lv, D. <i>et al.</i> (2015) Neuronal MHC Class I Expression Is Regulated by Activity Driven Calcium Signaling. PLoS One. 10 (8): e0135223.  3. Himoudi, N. <i>et al.</i> (2009) Migratory and antigen presentation functions of IFN-producing killer dendritic cells. Cancer Res. 69 (16): 6598-606.  4. Liu, J. <i>et al.</i> (2015) Spatial-Temporal Expression of Non-classical MHC Class I Molecules in the C57 Mouse Brain. Neurochem Res. 40 (7): 1487-96.  5. Liu, J. <i>et al.</i> (2013) The expression pattern of classical MHC class I molecules in the development of mouse central nervous system. Neurochem Res. 38 (2): 290-9.  6. Lv, D. <i>et al.</i> (2014) The similar expression pattern of MHC class I molecules in human and mouse cerebellar cortex. Neurochem Res. 39 (1): 180-6.  7. Sobue, A. <i>et al.</i> (2018) Astroglial major histocompatibility complex class I following immune activation leads to behavioral and neuropathological changes. Glia. Jan 30 [Epub ahead of print].

as this may denature the antibody.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2398">https://www.bio-rad-antibodies.com/SDS/MCA2398</a> 10040
Regulatory	For research purposes only

## **Related Products**

# **Recommended Secondary Antibodies**

Rabbit Anti Rat IgG (STAR16...) <u>DyLight®800</u>

Rabbit Anti Rat IgG (STAR17...)

Goat Anti Rat IgG (STAR72...)

HRP

Goat Anti Rat IgG (STAR69...)

Goat Anti Rat IgG (STAR73...)

Rabbit Anti Rat IgG (STAR21...)

HRP

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) <u>DyLight®550</u>, <u>DyLight®650</u>, <u>DyLight®800</u>

Goat Anti Rat IgG (STAR131...) Alk. Phos., Biotin

### **Recommended Negative Controls**

#### RAT IgG2a NEGATIVE CONTROL (MCA1212)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M366816:200529'

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