

Datasheet: MCA2687FB

Description:	MOUSE ANTI MHC CLASS II H-2I-Ak/s:FITC
Specificity:	MHC CLASS II H-2I-Ak/s
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	OX-6
Isotype:	IgG1
Quantity:	0.5 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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			1/50 - 1/100

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	Rat								
Species Cross Reactivity	Reacts with: Mouse N.B. Antibody reactivity and working conditions may vary between species.								
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid								
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
FITC	490	525							
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant								
Buffer Solution	Phosphate buffered saline								
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin								
Approx. Protein Concentrations	IgG concentration 0.5 mg/ml								
Immunogen	Rat thymocyte membrane glycoproteins.								
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells from the NS1 mouse myeloma cell line.								

Specificity

Mouse anti MHC Class II H-2I-Ak/s antibody, clone OX-6 recognizes a monomorphic determinant of the rat RT1B MHC class II antigen present on B lymphocytes, dendritic cells, some macrophages and certain epithelial cells.

Mouse anti MHC Class II H-2I-Ak/s antibody, clone OX-6 does not react with the rat BDIX strain due to a defect in RT1B expression ([Male, D. K. et al.](#)).

Mouse anti MHC Class II H-2I-Ak/s antibody, clone OX-6 also cross reacts with a polymorphic determinant on mouse strains of the H-2 haplotypes k and s. Analysis of recombinant mouse strains has mapped the OX-6 determinant to the H-2I-A region ([McMaster & Williams 1979](#)) and ([Maleef et al. 1987](#)).

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 H-2 region. In rats, this complex is referred to as the RT1 region.

This product is routinely tested in flow cytometry on rat splenocytes.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. McMaster, W.R. & Williams, A.F. (1979) Identification of Ia glycoproteins in rat thymus and purification from rat spleen. [Eur J Immunol. 9 \(6\): 426-33.](#)
2. Fernandez, J.L. & Weeks, M. (1986) Genetic monitoring of inbred strains of mice using monoclonal antibodies to major histocompatibility haplotypes and lymphocyte alloantigens. [Lab Anim. 20 \(4\): 293-7.](#)
3. Charteris, D.G. & Lightman, S.L. (1993) *In vivo* lymphokine production in experimental autoimmune uveoretinitis. [Immunology. 78 \(3\): 387-92.](#)
4. Whiteland, J.L. et al. (1995) Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. [J Histochem Cytochem. 43 \(3\): 313-20.](#)
5. McKechnie, N.M. et al. (1997) Immunization with the cross-reactive antigens Ov39 from *Onchocerca volvulus* and hr44 from human retinal tissue induces ocular pathology and activates retinal microglia. [J Infect Dis. 176 \(5\): 1334-43.](#)
6. Male, D.K. et al. (1987) Serological evidence for a defect in RT1.B (I-A) expression by the BDIX rat strain. [J Immunogenet. 14 \(6\): 301-12.](#)
7. Meyer zu Hörste, G. et al. (2011) Quinpramine ameliorates rat experimental autoimmune neuritis and redistributes MHC class II molecules. [PLoS One. 6\(6\): e21223.](#)
8. Zhang, M. et al. (2015) The distinct distributions of immunocompetent cells in rat dentin pulp after pulpotomy. [Anat Rec \(Hoboken\). 298 \(4\): 741-9.](#)
9. Ledreux, A. et al. (2016) Detrimental effects of a high fat/high cholesterol diet on memory and hippocampal markers in aged rats [Behavioural Brain Research. Jun 22 \[Epub ahead of print\]](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life 18 months from date of despatch.

Health And Safety Information Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA1209F\)](#)

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