

## Datasheet: MCA71R

<b>Description:</b>	RAT ANTI HUMAN HLA DR
<b>Specificity:</b>	HLA DR
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YE2/36-HLK
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

Where this product 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 product for use in their own system using appropriate negative/positive controls.

(1) **PLP fixation is recommended for optimal results, see [Whiteland et al.](#) for details**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	EHR-B Ramos cells.
<b>RRID</b>	AB_323671
<b>Fusion Partners</b>	Spleen cells from immunised AO rats were fused with cells of the rat Y3 Ag1.2.3 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Human HLA DR antibody, clone YE2/36-HLK</b> recognizes a monomorphic determinant of human HLA DR which is an MHC class II cell surface receptor expressed primarily on antigen presenting cells such as B lymphocytes, monocytes, macrophages and activated T lymphocytes.</p> <p>The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In humans, this complex is referred to as the human leukocyte antigen (HLA) region. There are 3 major MHC class II proteins encoded by the HLA which are HLA DP, HLA DQ and HLA DR.</p> <p>Rat anti Human HLA DR antibody, clone YE2/36-HLK has also been reported to be cross reactive with mouse H-2 haplotypes b, d and q expressed by mouse strains including C57BL/6, DBA, and NZB (<a href="#">Brickell et al. 1981</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Brickell, P.M. <i>et al.</i> (1981) A monoclonal antibody to the HLA-DR product recognizes a polymorphic Ia determinant in mice. <a href="#">Immunology. 43: 493-501.</a></li> <li>2. Whiteland, J.L. <i>et al.</i> (1995) Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. <a href="#">J Histochem Cytochem. 43 (3): 313-20.</a></li> <li>3. Bellinghausen, I.<i>et al.</i> (2003) Production of interleukin-13 by human dendritic cells after stimulation with protein allergens is a key factor for induction of T helper 2 cytokines and is associated with activation of signal transducer and activator of transcription-6. <a href="#">Immunology. 108:167-176.</a></li> <li>4. Thorne, A. <i>et al.</i> (2015) Tumor necrosis factor-<math>\alpha</math> promotes survival and phenotypic maturation of poly(I:C)-treated dendritic cells but impairs their Th1 and Th17 polarizing capability. <a href="#">Cytotherapy. pii: S1465-3249(14)00857-3.</a></li> <li>5. Nguyen Hoang, A.T. <i>et al.</i> (2012) Dendritic cell functional properties in a three-dimensional tissue model of human lung mucosa. <a href="#">Am J Physiol Lung Cell Mol Physiol. 302 (2): L226-37.</a></li> <li>6. Zuo, J. <i>et al.</i> (2009) The Epstein-Barr virus G-protein-coupled receptor contributes to immune evasion by targeting MHC class I molecules for degradation. <a href="#">PLoS Pathog. 5(1): e1000255.</a></li> <li>7. Walter, W. <i>et al.</i> (2001) H2-Mbeta 1 and H2-Mbeta 2 heterodimers equally promote clip removal in I-A(q) molecules from autoimmune-prone DBA/1 mice. <a href="#">J Biol Chem. 276: 11086-91.</a></li> <li>8. Cruchley, A.T. <i>et al.</i> (1987) Dual expression of the cell-surface antigens HLA-DR and</li> </ol>

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14. Becker, D. *et al.* (1997) Flow-cytometric screening for the modulation of receptor-mediated endocytosis in human dendritic cells: implications for the development of an in vitro technique for predictive testing of contact sensitizers. [J Immunol Methods. 203: 171-80.](#)

15. Klotz, B. *et al.* (2012) 1,25-Dihydroxyvitamin D3 Treatment Delays Cellular Aging in Human Mesenchymal Stem Cells while Maintaining Their Multipotent Capacity. [PLoS One. 7: e29959.](#)

16. Hietbrink F *et al.* (2015) The Impact of Intramedullary Nailing of Tibia Fractures on the Innate Immune System. [Shock. 44 \(3\): 209-14.](#)

17. GarikipatiV, N.S. *et al.* (2018) Isolation and characterization of mesenchymal stem cells from human fetus heart. [PLoS One. 13 \(2\): e0192244.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®800</a>

Goat Anti Rat IgG (STAR72...)  
Rabbit Anti Rat IgG (STAR21...)  
Rabbit Anti Rat IgG (STAR17...)  
Goat Anti Rat IgG (STAR131...)

[HRP](#)  
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'M381484:210512'

**Printed on 29 Aug 2021**

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