

Datasheet: MCA2090PE

## **BATCH NUMBER INN1801**

Description:	MOUSE ANTI HUMAN HLA A2:RPE
Specificity:	HLA A2
Format:	RPE
<b>Product Type:</b>	Monoclonal Antibody
Clone:	BB7.2
Isotype:	lgG2b
Quantity:	100 TESTS

# **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				Neat

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	Human		
Product Form	Purified IgG conjuga	ted to R. Phycoerythrin	(RPE) - lyophilized
Reconstitution	Reconstitute with 1.0	) ml distilled water	
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepare supernatant.	d by affinity chromatog	raphy on Protein G f
Buffer Solution	Phosphate buffered	saline	
Preservative	0.09% Sodium Azide	e	
Stabilisers	1% Bovine Serun	n Albumin	
	5% Sucrose		

Immunogen	Papain solubilized HLA-A2
External Database Links	UniProt:
	P01892 Related reagents
	Entrez Gene:
	3105 HLA-A Related reagents
Synonyms	HLAA
RRID	AB_324027
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line
Specificity	Mouse anti Human HLA A2 antibody, clone BB7.2 recognizes the human HLA-A2 histocompatability antigen. The epitope recognized by this antibody has been studied extensively and would appear to include the carboxy-terminus of the alpha-2 helix and a turn on one of the underlying beta strands.
	Mouse anti Human HLA A2 antibody, clone BB7.2 may be used for the flow cytometric detection of HLA-A2 expression and has also been used for immunoaffinity purification of HLA-A2 molecules. Functionally Mouse anti Human HLA A2 antibody, clone BB7.2 is reported to inhibit MHC restricted cellular cytotoxicity.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
References	1. Parham, P. & Brodsky, F.M. (1981) Partial purification and some properties of BB7.2. A cytotoxic monoclonal antibody with specificity for HLA-A2 and a variant of HLA-A28. <a href="https://www.hummunol.30"><u>Hummunol.30</u></a> (4): 277-99.
	2. Hogan, K.T. & Brown, S.L. (1992) Localization and characterization of serologic epitopes on HLA-A2. <u>Hum Immunol. 33 (3): 185-92.</u>
	3. Harig, S. <i>et al.</i> (2001) Induction of cytotoxic T-cell responses against immunoglobulin V region-derived peptides modified at human leukocyte antigen-A2 binding residues. <u>Blood.</u>
	98 (10): 2999-3005.
	4. Pantenburg, B. <i>et al.</i> (2010) Human CD8(+) T cells clear <i>Cryptosporidium parvum</i> from infected intestinal epithelial cells. <u>Am J Trop Med Hyg. 82:600-7.</u>
	5. Duncan, L.M. et al. (2010) Stabilization of an E3 ligase-E2-ubiquitin complex increases
	cell surface MHC class I expression. <u>J Immunol. 184: 6978-85.</u> 6. Wang, B. <i>et al.</i> (2004) Identification of an HLA-A*0201-restricted CD8+ T-cell epitope
	SSp-1 of SARS-CoV spike protein. <u>Blood. 104: 200-6.</u>
	7. Wooldridge, L. <i>et al.</i> (2007) Enhanced immunogenicity of CTL antigens through mutation of the CD8 binding MHC class I invariant region. <u>Eur J Immunol.</u> 37: 1323-33.
	8. Wooldridge, L. <i>et al.</i> (2010) MHC class I molecules with Superenhanced CD8 binding properties bypass the requirement for cognate TCR recognition and nonspecifically
	activate CTLs. <u>J Immunol. 184: 3357-66.</u> 9. Popovic, J. <i>et al.</i> (2011) The only proposed T-cell epitope derived from the TEL-AML1

translocation is not naturally processed. Blood. 118 (4): 946-54.

- 10. Schmidt, J. *et al.* (2011) Reversible Major Histocompatibility Complex I-Peptide Multimers Containing Ni2+-Nitrilotriacetic Acid Peptides and Histidine Tags Improve Analysis and Sorting of CD8+ T Cells. J Biol Chem. 286: 41723-35.
- 11. Brooks, S.E. *et al.* (2015) Application of the pMHC Array to Characterise Tumour Antigen Specific T Cell Populations in Leukaemia Patients at Disease Diagnosis. <u>PLoS One. 10 (10): e0140483.</u>
- 12. Rothe, K. *et al.* (2016) Latent Cytomegalovirus Infection in Rheumatoid Arthritis and Increased Frequencies of Cytolytic LIR-1+CD8+ T Cells. <u>Arthritis Rheumatol. 68 (2):</u> 337-46.
- 13. De Angelis Rigotti, F. *et al.* (2017) MARCH9-mediated ubiquitination regulates MHC I export from the TGN. Immunol Cell Biol. 95 (9): 753-64.
- 14. Kim, J.Y. *et al.* (2017) Detection of Donor-Derived Microparticles in the Peripheral Blood of a Hand Transplant Recipient During Rejection. <u>Transplant Direct. 3 (3): e131.</u>
- 15. Dockree, T. *et al.* (2017) CD8<sup>+</sup> T-cell specificity is compromised at a defined MHCI/CD8 affinity threshold. Immunol Cell Biol. 95 (1): 68-76.
- 16. Sun, W. *et al.* (2018) A modified HLA-A\*0201-restricted CTL epitope from human oncoprotein (hPEBP4) induces more efficient antitumor responses. <u>Cell Mol Immunol. 15</u> (8): 768-81.
- 17. Obenaus, M. *et al.* (2015) Identification of human T-cell receptors with optimal affinity to cancer antigens using antigen-negative humanized mice. <u>Nat Biotechnol. 33 (4): 402-7.</u>
  18. Walseng, E. *et al.* (2015) Soluble T-cell receptors produced in human cells for targeted

delivery. PLoS One. 10 (4): e0119559.

#### **Storage**

Prior to reconstitution store at +4°C.

After reconstitution store at +4°C.

DO NOT FREEZE. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

# Health And Safety Information

Material Safety Datasheet documentation #20487 available at:

https://www.bio-rad-antibodies.com/SDS/MCA2090PE

20487

Regulatory

For research purposes only

## Related Products

## **Recommended Negative Controls**

MOUSE IgG2b NEGATIVE CONTROL:RPE (MCA691PE)

### **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

Tel: +49 (0) 89 8090 95 21 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 'M375416:210104'

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