

Datasheet: MCA2090A488

## **BATCH NUMBER 166471**

Description:	MOUSE ANTI HUMAN HLA A2:Alexa Fluor® 488			
Specificity:	HLA A2			
Format:	ALEXA FLUOR® 488			
Product Type:	Monoclonal Antibody			
Clone:	BB7.2			
Isotype:	lgG2b			
Quantity:	100 TESTS/1ml			

## **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 - 1/10

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.

Target Species Product Form	Human	ated to Alexa Fluor® 48	8
Froduct i oilii	Purified igG conjug	Jaleu lo Alexa Fluor® 400	O
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®488	495	519
reparation		red by affinity chromatog	raphy on Protein A f
•	Purified IgG prepar supernatant Phosphate buffered		raphy on Protein A f
Preparation Buffer Solution Preservative	supernatant	d saline	raphy on Protein A f
Buffer Solution	supernatant Phosphate buffered	d saline le (NaN <sub>3</sub> )	raphy on Protein A f

Immunogen	Papain solubilized HLA-A2
External Database Links	UniProt: P01892 Related reagents  Entrez Gene: 3105 HLA-A Related reagents
Synonyms	HLAA
RRID	AB_324512
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 10µl of the suggested working dilution to label 10 <sup>6</sup> cells or 100µl 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. Hum Immunol. 3 (4): 277-99.  2. Hogan, K.T. & Brown, S.L. (1992) Localization and characterization of serologic epitopes on HLA-A2. Hum Immunol. 33 (3): 185-92.  3. Drukker, M. et al. (2006) Human embryonic stem cells and their differentiated derivatives are less susceptible to immune rejection than adult cells. Stem Cells. 24 (2): 221-9.  4. Pantenburg, B. et al. (2010) Human CD8(+) T cells clear <i>Cryptosporidium parvum</i> from infected intestinal epithelial cells. Am J Trop Med Hyg. 82:600-7.  5. Duncan, L.M. et al. (2010) Stabilization of an E3 ligase-E2-ubiquitin complex increases cell surface MHC class I expression. J Immunol. 184: 6978-85.  6. Wang, B. et al. (2004) Identification of an HLA-A*0201-restricted CD8+ T-cell epitope SSp-1 of SARS-CoV spike protein. Blood. 104: 200-6.  7. Wooldridge, L. et al. (2007) Enhanced immunogenicity of CTL antigens through mutation of the CD8 binding MHC class I invariant region. Eur J Immunol. 37: 1323-33.  8. Wooldridge, L. et al. (2010) MHC class I molecules with Superenhanced CD8 binding

9. Popovic, J. et al. (2011) The only proposed T-cell epitope derived from the TEL-AML1

properties bypass the requirement for cognate TCR recognition and nonspecifically

activate CTLs. J Immunol. 184: 3357-66.

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. Transplant Direct. 3 (3): e131.
- 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. <u>PLoS One. 10 (4): e0119559.</u>

### **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. This product is photosensitive and should be protected from light.

#### Guarantee

12 months from date of despatch

### Acknowledgements

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# Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2090A488">https://www.bio-rad-antibodies.com/SDS/MCA2090A488</a> 10041

**Regulatory** For research purposes only

## **Related Products**

## **Recommended Negative Controls**

MOUSE IgG2b NEGATIVE CONTROL:Alexa Fluor® 488 (MCA691A488)

## **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

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 Tel: +1 800 265 7376
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M412822:221116'

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