

Datasheet: MCA2090AMO

Description:	MOUSE ANTI HUMAN HLA A2:Amethyst Orange
Specificity:	HLA A2
Format:	Amethyst Orange
Product Type:	Monoclonal Antibody
Clone:	BB7.2
Isotype:	IgG2b
Quantity:	0.1 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	▪			Neat

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	Human		
Product Form	Purified IgG conjugated to Amethyst Orange - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Amethyst Orange	405	540
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant.		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
Immunogen	Papain solubilized HLA-A2		

External Database Links	<p>UniProt: P01892 Related reagents</p> <p>Entrez Gene: 3105 HLA-A Related reagents</p> <hr/> <p>Synonyms HLAA</p> <hr/> <p>Fusion Partners Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line</p> <hr/> <p>Specificity Mouse anti Human HLA A2 antibody, clone BB7.2 recognizes the human HLA-A2 histocompatibility 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.</p> <p>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.</p> <hr/> <p>Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells or 100ul whole blood</p> <hr/> <p>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.</p> <p>2. Hogan, K.T. & Brown, S.L. (1992) Localization and characterization of serologic epitopes on HLA-A2. Hum Immunol. 33 (3): 185-92.</p> <p>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. Blood. 98 (10): 2999-3005.</p> <p>4. Pantenburg, B. <i>et al.</i> (2010) Human CD8(+) T cells clear <i>Cryptosporidium parvum</i> from infected intestinal epithelial cells. Am J Trop Med Hyg. 82:600-7.</p> <p>5. Duncan, L.M. <i>et al.</i> (2010) Stabilization of an E3 ligase-E2-ubiquitin complex increases cell surface MHC class I expression. J Immunol. 184: 6978-85.</p> <p>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. Blood. 104: 200-6.</p> <p>7. Wooldridge, L. <i>et al.</i> (2007) Enhanced immunogenicity of CTL antigens through mutation of the CD8 binding MHC class I invariant region. Eur J Immunol. 37: 1323-33.</p> <p>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. J Immunol. 184: 3357-66.</p> <p>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.</p> <p>10. Schmidt, J. <i>et al.</i> (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.</p>
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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. [PLoS One. 10 \(10\): e0140483.](#)
12. Rothe, K. *et al.* (2016) Latent Cytomegalovirus Infection in Rheumatoid Arthritis and Increased Frequencies of Cytolytic LIR-1+CD8+ T Cells. [Arthritis Rheumatol. 68 \(2\): 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⁺ 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. [Cell Mol Immunol. 15 \(8\): 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. [Nat Biotechnol. 33 \(4\): 402-7.](#)
18. Walseng, E. *et al.* (2015) Soluble T-cell receptors produced in human cells for targeted delivery. [PLoS One. 10 \(4\): e0119559.](#)

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

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 IgG2b NEGATIVE CONTROL: Amethyst Orange \(MCA691AMO\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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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

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