Datasheet: MCA2090A488

Description:	MOUSE ANTI HUMAN HLA A2:Alexa Fluor® 488
Specificity:	HLA A2
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	BB7.2
Isotype:	IgG2b
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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 conjugated to Alexa Fluor® 488

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant.

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

Immunogen

Papain solubilised HLA-A2

External Database Links

UniProt:
P01892 Related reagents

Entrez Gene:

3105 HLA-A Related reagents

Synonyms	HLAA
Fusion Partners	Spleen cells from immunised 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 10^6 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. 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. Harig, S. *et al.* (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. 4. Pantenburg, B. *et al.* (2010) Human CD8(+) T cells clear *Cryptosporidium parvum* 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 properties bypass the requirement for cognate TCR recognition and nonspecifically activate CTLs. J Immunol. 184: 3357-66. 9. Popovic, J. *et al.* (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. 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. DeAngelisRigotti, 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. Jan 29 [Epub ahead of print].
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	Store at +4ºC or at -20ºC 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. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
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:Alexa Fluor® 488 (MCA691A488)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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