

Datasheet: MCA81A647

Description:	MOUSE ANTI HUMAN HLA ABC:Alexa Fluor® 647
Specificity:	HLA ABC
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	W6/32
Isotype:	IgG2a
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

Species Cross Reactivity Reacts with: Macaque, Bovine, Cynomolgus monkey, Baboon, Rhesus Monkey, Chimpanzee, Gorilla, Shrew
Does not react with: Goat, Dog, Guinea Pig, Rabbit, Mouse, Chicken, Amphibia
N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form Purified IgG conjugated to Alexa Fluor® 647 - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665

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	Purified human tonsil lymphocyte membranes.
RRID	AB_322147
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1/1-Ag4.1 myeloma cell line.
Specificity	<p>Mouse anti Human HLA ABC antibody, clone W6/32 recognizes an antigenic determinant shared among products of the HLA A, B and C loci. Clone W6/32 recognizes a conformational epitope, reacting with HLA class I alpha3 and alpha2 domains. 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 I proteins encoded by the HLA which are HLA A, HLA B and HLA C. These proteins are found on the surface of almost all nucleated somatic cells.</p> <p>Mouse anti Human HLA ABC antibody, clone W6/32 is routinely tested in flow cytometry on human peripheral blood lymphocytes.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Brodsky, F.M. & Parham, P. (1982) Evolution of HLA antigenic determinants: species cross-reactions of monoclonal antibodies. Immunogenetics. 15 (2): 151-66. 2. Neefjes, J.J. <i>et al.</i> (1986) A biochemical characterization of feline MHC products: unusually high expression of class II antigens on peripheral blood lymphocytes. Immunogenetics. 23 (5): 341-7. 3. Stern, P.L. <i>et al.</i> (1987) Class I-like MHC molecules expressed by baboon placental syncytiotrophoblast. J Immunol. 138 (4): 1088-91. 4. Jacobsen, C.N. <i>et al.</i> (1993) Reactivities of 20 anti-human monoclonal antibodies with leucocytes from ten different animal species. Vet Immunol Immunopathol. 39 (4): 461-6. 5. Verbeek, M.M. <i>et al.</i> (1995) T lymphocyte adhesion to human brain pericytes is mediated via very late antigen-4/vascular cell adhesion molecule-1 interactions. J Immunol. 154 (11): 5876-84. 6. Raftery, M.J. <i>et al.</i> (2002) Hantavirus infection of dendritic cells. J Virol. 76: 10724-33. 7. Dressel, R. <i>et al.</i> (2003) Differential effect of acute and permanent heat shock protein 70 overexpression in tumor cells on lysability by cytotoxic T lymphocytes. Cancer Res. 63 (23): 8212-20. 8. Ishitani, A. <i>et al.</i> (2003) Protein expression and peptide binding suggest unique and interacting functional roles for HLA-E, F, and G in maternal-placental immune recognition. J Immunol. 171 (3): 1376-84.

9. Giuliani, F. *et al.* (2003) Vulnerability of human neurons to T cell-mediated cytotoxicity. [J Immunol. 171: 368-79.](#)
10. Smith, A.C. *et al.* (2005) Interaction of the *Salmonella*-containing vacuole with the endocytic recycling system. [J Biol Chem. 280: 24634-41.](#)
11. Zuo, J. *et al.* (2008) The DNase of gammaherpesviruses impairs recognition by virus-specific CD8+ T cells through an additional host shutoff function. [J Virol. 82: 2385-93.](#)
12. Shi, J. *et al.* (2008) Bortezomib down-regulates the cell-surface expression of HLA class I and enhances natural killer cell-mediated lysis of myeloma. [Blood. 111: 1309-17.](#)
13. Watling, D. *et al.* (2008) Multiple kinases in the interferon-gamma response. [Proc Natl Acad Sci U S A. 105: 6051-6.](#)
14. Grotzke, J.E. *et al.* (2009) The *Mycobacterium tuberculosis* phagosome is a HLA-I processing competent organelle. [PLoS Pathog. 5: e1000374.](#)
15. Koch, N. *et al.* (2009) IL-10 protects monocytes and macrophages from complement-mediated lysis. [J Leukoc Biol. 86: 155-66.](#)
16. Spentzou, A. *et al.* (2010) Viral inhibition assay: a CD8 T cell neutralization assay for use in clinical trials of HIV-1 vaccine candidates. [J Infect Dis. 201: 720-9.](#)
17. Vitadello, M. *et al.* (2010) Myofiber stress-response in myositis: parallel investigations on patients and experimental animal models of muscle regeneration and systemic inflammation. [Arthritis Res Ther. 12: R52.](#)
18. Hinrichs, J. *et al.* (2010) The nature of peptides presented by an HLA class I low expression allele. [Haematologica. 95: 1373-80.](#)
19. Fujita, Y. *et al.* (2010) Bone marrow transplantation restores epidermal basement membrane protein expression and rescues epidermolysis bullosa model mice. [Proc Natl Acad Sci U S A. 107: 14345-50.](#)
20. Narita, M. *et al.* (2010) WT1 peptide vaccination in combination with imatinib therapy for a patient with CML in the chronic phase. [Int J Med Sci. 7: 72-81.](#)
21. Zuo, J. *et al.* (2011) The Epstein-Barr virus-encoded BILF1 protein modulates immune recognition of endogenously processed antigen by targeting major histocompatibility complex class I molecules trafficking on both the exocytic and endocytic pathways. [J Virol. 85: 1604-14.](#)
22. Lask, A. *et al.* (2011) TCR-Independent Killing of B Cell Malignancies by Anti-Third-Party CTLs: The Critical Role of MHC-CD8 Engagement. [J Immunol. 187: 2006-14.](#)
23. Jones, D.C. *et al.* (2011) HLA Class I Allelic Sequence and Conformation Regulate Leukocyte Ig-Like Receptor Binding. [J Immunol. 186: 2990-7.](#)
24. Enose-Akahata, Y. *et al.* (2012) Minocycline modulates antigen-specific CTL activity through inactivation of mononuclear phagocytes in patients with HTLV-I associated neurologic disease. [Retrovirology. 9: 16.](#)
25. Badrinath, S. *et al.* (2012) Position 156 influences the peptide repertoire and tapasin dependency of human leukocyte antigen B*44 allotypes. [Haematologica. 97: 98-106.](#)
26. Tannetta, D.S. *et al.* (2013) Characterisation of syncytiotrophoblast vesicles in normal pregnancy and pre-eclampsia: expression of Flt-1 and endoglin. [PLoS One. 8 \(2\): e56754.](#)
27. Dragovic, R.A. *et al.* (2015) Isolation of syncytiotrophoblast microvesicles and exosomes and their characterisation by multicolour flow cytometry and fluorescence Nanoparticle Tracking Analysis. [Methods. 87: 64-74.](#)
28. Tischer, S. *et al.* (2016) Discovery of immunodominant T-cell epitopes reveals penton protein as a second immunodominant target in human adenovirus infection. [J Transl Med.](#)

[14 \(1\): 286.](#)

29. Praest, P. *et al.* (2019) A Flow Cytometry-Based Approach to Unravel Viral Interference with the MHC Class I Antigen Processing and Presentation Pathway. [Methods Mol Biol. 1988: 187-98.](#)

30. Juan, C.H. *et al.* (2020) *In Vitro* Differentiation of Human Placenta-Derived Multipotent Cells into Schwann-Like Cells. [Biomolecules. 10 \(12\): 1657.](#)

31. Tupova, L. *et al.* (2020) Interplay of drug transporters P-glycoprotein (MDR1), MRP1, OATP1A2 and OATP1B3 in passage of maraviroc across human placenta. [Biomed Pharmacother. 129: 110506.](#)

32. Nguyen, J. *et al.* (2021) Quantitative contributions of TNF receptor superfamily members to CD8⁺ T-cell responses. [Mol Syst Biol. 17 \(11\): e10560.](#)

33. Xia, P. *et al.* (2022) NLRP3 inflammasome up-regulates major histocompatibility complex class I expression and promotes inflammatory infiltration in polymyositis. [BMC Immunol. 23 \(1\): 39.](#)

34. Cacciola, R. *et al.* (2022) Impact of Anti-Endothelial Cell Antibodies (AECAs) in Patients with Polycythemia Vera and Thrombosis [Diagnostics. 12 \(5\): 1077.](#)

35. Korbonits, L. *et al.* (2022) *Mycobacterium avium* subsp. *paratuberculosis* Infected Cows Reveal Divergent Immune Response in Bovine Peripheral Blood Derived Lymphocyte Proteome. [Metabolites. 12 \(10\): 924.](#)

36. Lyssy, F. *et al.* (2023) Platelet-derived factors dysregulate placental sphingosine-1-phosphate receptor 2 in human trophoblasts. [Reprod Biomed Online. 47 \(2\): 103215.](#)

37. Forstner, D. *et al.* (2023) CD39 abrogates platelet-derived factors induced IL-1 β expression in the human placenta. [Front Cell Dev Biol. 11: 1183793.](#)

38. Zheng, S. *et al.* (2022) The SARS-CoV-2 accessory factor ORF7a downregulates MHC class I surface expression. [bioRxiv 30 May \[Epub ahead of print. Preprint\]](#)

39. Fielding, C.A. *et al.* (2022) SARS-CoV-2 host-shutoff impacts innate NK cell functions, but antibody-dependent NK activity is strongly activated through non-spike antibodies. [11: e74489.](#)

40. Santamarena, M.M. *et al.* (2024) Engineered HCMV-infected APCs enable the identification of new immunodominant HLA-restricted epitopes of anti-HCMV T-cell immunity. [HLA. 103 \(6\): e15541.](#)

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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<https://www.bio-rad-antibodies.com/SDS/MCA81A647>
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Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA929A647\)](#)

Recommended Useful Reagents

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

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

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

 Email: antibody_sales_us@bio-rad.com

Worldwide

 Tel: +44 (0)1865 852 700

 Fax: +44 (0)1865 852 739

 Email: antibody_sales_uk@bio-rad.com

Europe

 Tel: +49 (0) 89 8090 95 21

 Fax: +49 (0) 89 8090 95 50

 Email: antibody_sales_de@bio-rad.com

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