Datasheet: MCA81SBR775

Description:	MOUSE ANTI HUMAN HLA ABC:StarBright Red 775
Specificity:	HLA ABC
Format:	StarBright Red 775
Product Type:	Monoclonal Antibody
Clone:	W6/32
Isotype:	IgG2a
Quantity:	100 TESTS/0.5ml

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

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 StarBright Red 775 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Red 775	653	778

Preparation

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

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
Immunogen	Purified human tonsil lymphocyte membranes.
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1/1-Ag4.1 myeloma cell line.
Specificity	**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. Mouse anti Human HLA ABC antibody, clone W6/32 is routinely tested in flow cytometry on human peripheral blood lymphocytes.
Flow Cytometry	Use 5µl of the suggested working dilution to label 10^6 cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	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. *et al.* (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. *et al.* (1987) Class I-like MHC molecules expressed by baboon placental syncytiotrophoblast. J Immunol. 138 (4): 1088-91. 4. Jacobsen, C.N. *et al.* (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. *et al.* (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. *et al.* (2002) Hantavirus infection of dendritic cells. J Virol. 76: 10724-33. 7. Dressel, R. *et al.* (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. *et al.* (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-1β 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. Santamorena, 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	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
Guarantee	12 months from date of despatch
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA81SBR775 20471
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

North & South America	Tel: +1 800 265 7376 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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M426083:231120'

Printed on 12 Dec 2024