# Datasheet: MCA81SBUV740

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| **Description:** | MOUSE ANTI HUMAN HLA ABC:StarBright UltraViolet 740 |
| **Specificity:** | HLA ABC |
| **Format:** | StarBright UltraViolet 740 |
| **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 UltraViolet 740 - liquid

**Max Ex/Em**

| Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|---|---|---|
| StarBright UltraViolet 740 | 344 | 743 |

**Preparation**

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

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| **Buffer Solution** | Phosphate buffered saline |
| **Preservative Stabilisers** | 0.09% Sodium Azide (NaN$_3$) <br> 1% Bovine Serum Albumin <br> 0.1% Pluronic F68 <br> 0.1% PEG 3350 <br> 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. <br><br> Mouse anti Human HLA ABC antibody, clone W6/32 is routinely tested in flow cytometry on human peripheral blood lymphocytes. |
| **Flow Cytometry** | Use 5ul of the suggested working dilution to label $10^6$ cells in 100ul. 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. <br> 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. <br> 3. Stern, P.L. *et al.* (1987) Class I-like MHC molecules expressed by baboon placental syncytiotrophoblast. J Immunol. 138 (4): 1088-91. <br> 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. <br> 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. <br> 6. Raftery, M.J. *et al.* (2002) Hantavirus infection of dendritic cells. J Virol. 76: 10724-33. <br> 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. <br> 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. <br> 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. *paratuberculosi*s 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.

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| **Storage** | Store at +4°C. DO NOT FREEZE.<br>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:<br>https://www.bio-rad-antibodies.com/SDS/MCA81SBUV740<br>20471 |
| **Regulatory** | For research purposes only |

# Related Products

**Recommended Useful Reagents**

[HUMAN SEROBLOCK (BUF070A)](#)

[HUMAN SEROBLOCK (BUF070B)](#)

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

'M417315:230314'

**Printed on 12 Dec 2024**