

## Datasheet: MCA1044SBUV400

**BATCH NUMBER 64609625**

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| <b>Description:</b>  | RAT ANTI DOG MHC CLASS II MONOMORPHIC:StarBright UltraViolet 400 |
| <b>Specificity:</b>  | MHC CLASS II MONOMORPHIC   |
| <b>Format:</b>       | StarBright UltraViolet 400                                       |
| <b>Product Type:</b> | Monoclonal Antibody  |
| <b>Clone:</b>        | YKIX334.2  |
| <b>Isotype:</b>      | IgG2a  |
| <b>Quantity:</b>     | 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](http://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.

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| <b>Target Species</b>           | Dog   |                            |                          |
| <b>Species Cross Reactivity</b> | Does not react with:Hooded Seal   |                            |                          |
| <b>Product Form</b>             | Purified IgG conjugated to StarBright UltraViolet 400 - liquid                                |                            |                          |
| <b>Max Ex/Em</b>                | <b>Fluorophore</b>  | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                                 | StarBright UltraViolet 400  | 335                        | 394                      |
| <b>Preparation</b>              | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |                            |                          |
| <b>Buffer Solution</b>          | Phosphate buffered saline   |                            |                          |
| <b>Preservative Stabilisers</b> | 0.09% Sodium Azide (NaN <sub>3</sub> )<br>1% Bovine Serum Albumin                             |                            |                          |

0.1% Pluronic F68  
0.1% PEG 3350  
0.05% Tween 20

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| <b>Immunogen</b> | Con A activated canine peripheral blood cells. |
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| <b>Fusion Partners</b> | Spleen cells from immunized DA rats were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line. |
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| <b>Specificity</b> | <b>Rat anti Dog MHC Class II Monomorphic antibody, clone YKIX334.2</b> recognizes a monomorphic epitope on canine MHC Class II and was classified at the First Canine Leucocyte Antigen Workshop ( <a href="#">Cobbold et al. 1994</a> ). The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In dogs, this is referred to as the dog leukocyte antigen (DLA) region. Rat anti Dog MHC Class II immunoprecipitates an antigen of ~32/34 kDa and blocks the proliferation of MHC Class II dependent responses <i>in vitro</i> . In dogs, MHC Class II is expressed by all peripheral blood mononuclear cells. |
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| <b>Flow Cytometry</b> | Use 5µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application. |
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| <b>References</b> | <ol style="list-style-type: none"><li>1. Cobbold, S. &amp; Metcalfe, S. (1994) Monoclonal antibodies that define canine homologues of human CD antigens: summary of the First International Canine Leukocyte Antigen Workshop (CLAW). <a href="#">Tissue Antigens. 43 (3): 137-54.</a></li><li>2. Watson, C.J. et al. (1994) Immunosuppression of canine renal allograft recipients by CD4 and CD8 monoclonal antibodies. <a href="#">Tissue Antigens. 43 (3): 155-62.</a></li><li>3. Liu, Y. et al. (2000) Immunosuppressant-free allotransplantation of the trachea The antigenicity of tracheal grafts can be reduced by removing the epithelium and mixed glands from the graft by detergent treatment. <a href="#">J Thorac Cardiovasc Surg. 120: 108-14.</a></li><li>4. Sanchez, M.A. et al. (2004) Organ-specific immunity in canine visceral leishmaniasis: analysis of symptomatic and asymptomatic dogs naturally infected with <i>Leishmania chagasi</i>. <a href="#">Am J Trop Med Hyg. 70: 618-24.</a></li><li>5. Reis, A.B. et al. (2006) Phenotypic features of circulating leucocytes as immunological markers for clinical status and bone marrow parasite density in dogs naturally infected by <i>Leishmania chagasi</i>. <a href="#">Clin Exp Immunol. 146: 303-11.</a></li><li>6. Bonnefont-Rebeix, C. et al. (2007) Toll-like receptor 3 (TLR3): a new marker of canine monocytes-derived dendritic cells (cMo-DC). <a href="#">Vet Immunol Immunopathol. 2007 Jul 15;118(1-2):134-9.</a></li><li>7. Schütze, N. et al. (2009) Inactivated parapoxvirus ovis activates canine blood phagocytes and T lymphocytes. <a href="#">Vet Microbiol. 137: 260-7.</a></li><li>8. Bund, D. et al. (2010) Canine-DCs using different serum-free methods as an approach to provide an animal-model for immunotherapeutic strategies. <a href="#">Cell Immunol. 263: 88-98.</a></li><li>9. Mito, K. et al. (2010) IFN<math>\gamma</math> markedly cooperates with intratumoral dendritic cell vaccine in dog tumor models. <a href="#">Cancer Res. 70: 7093-101.</a></li><li>10. Araújo, M.S. et al. (2011) Immunological changes in canine peripheral blood leukocytes triggered by immunization with first or second generation vaccines against canine visceral leishmaniasis. <a href="#">Vet Immunol Immunopathol. 141: 64-75.</a></li><li>11. Larsen, A.K. et al. (2013) Entry and elimination of marine mammal <i>Brucella</i> spp. by</li></ol> |
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marker of acute myeloid leukemia in dogs. [Front Vet Sci. 11: 1405297.](#)

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| <b>Storage</b>                       | Store at +4°C. DO NOT FREEZE.<br>This product should be stored undiluted.   |
| <b>Guarantee</b>                     | 12 months from date of despatch   |
| <b>Acknowledgements</b>              | This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts   |
| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #20471 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/MCA1044SBUV400">https://www.bio-rad-antibodies.com/SDS/MCA1044SBUV400</a> |
| <b>Regulatory</b>                    | For research purposes only  |

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**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
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**Printed on 30 Jan 2026**