

# Datasheet: MCA1736SBV610

**BATCH NUMBER 64755621**

|                      |                                           |
|----------------------|-------------------------------------------|
| <b>Description:</b>  | MOUSE ANTI PIG CD25:StarBright Violet 610 |
| <b>Specificity:</b>  | CD25                                      |
| <b>Other names:</b>  | IL-2R ALPHA CHAIN                         |
| <b>Format:</b>       | StarBright Violet 610                     |
| <b>Product Type:</b> | Monoclonal Antibody                       |
| <b>Clone:</b>        | K231.3B2                                  |
| <b>Isotype:</b>      | IgG1                                      |
| <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.

|                 |                                                                                               |                     |                   |
|-----------------|-----------------------------------------------------------------------------------------------|---------------------|-------------------|
| Target Species  | Pig                                                                                           |                     |                   |
| Product Form    | Purified IgG conjugated to StarBright Violet 610 - liquid                                     |                     |                   |
| Max Ex/Em       | Fluorophore                                                                                   | Excitation Max (nm) | Emission Max (nm) |
|                 | StarBright Violet 610                                                                         | 403                 | 607               |
| Preparation     | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant |                     |                   |
| Buffer Solution | Phosphate buffered saline                                                                     |                     |                   |
| Preservative    | 0.09% Sodium Azide (NaN <sub>3</sub> )                                                        |                     |                   |
| Stabilisers     | 1% Bovine Serum Albumin                                                                       |                     |                   |
|                 | 0.1% Pluronic F68                                                                             |                     |                   |
|                 | 0.1% PEG 3350                                                                                 |                     |                   |

0.05% Tween 20

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Approx. Protein Concentrations</b> | For information on the concentration of our StarBright Dye conjugated reagents please visit our <a href="#">FAQ</a> page.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Immunogen</b>                      | Con A activated porcine peripheral blood lymphocytes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>External Database Links</b>        | <b>UniProt:</b><br><a href="#">O02733</a> <a href="#">Related reagents</a><br><br><b>Entrez Gene:</b><br><a href="#">396814</a> IL2RA <a href="#">Related reagents</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>RRID</b>                           | AB_2943386                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Fusion Partners</b>                | Spleen cells from immunized mice were fused with cells of the mouse P3-X63-Ag.8.653 myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Specificity</b>                    | <p><b>Mouse anti Pig CD25, clone K231.3B2</b> recognizes porcine CD25, the alpha chain of the interleukin 2 receptor (IL-2R<math>\alpha</math>), also known as the low affinity Interleukin 2 receptor. The IL-2 receptor exists in three forms, the high affinity heterodimer, the intermediate affinity <math>\beta</math> monomer and the low affinity <math>\alpha</math> monomer configurations. Clone K231.3B2 was clustered as CD25 at the First International Workshop to Define Swine Cluster of Differentiation (CD) Antigens (<a href="#">Lunney <i>et al.</i> 1994</a>).</p> <p>Mouse anti pig CD25, clone K231.3B2 immunoprecipitates a protein of ~65-70 kDa from activated lymphocyte preparations (<a href="#">Bailey <i>et al.</i> 1992</a>).</p> <p>CD25 is a 270 amino acid single pass type I transmembrane glycoprotein containing 2 Sushi domains. Low expression of CD25 is seen on resting peripheral blood mononuclear cells, rapidly up-regulated following stimulation by concanavalin A and phorbol myristate acetate, indicative of its role as an activation antigen (<a href="#">Bullido <i>et al.</i> 1999</a>).</p> |
| <b>Flow Cytometry</b>                 | Use 5 $\mu$ l of the suggested working dilution to label 0.5x10 <sup>6</sup> cells in 100 $\mu$ l. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>References</b>                     | <ol style="list-style-type: none"><li>1. Bailey, M. <i>et al.</i> (1992) A monoclonal antibody recognising an epitope associated with pig interleukin-2 receptors. <a href="#">J Immunol Methods. 153 (1-2): 85-91.</a></li><li>2. Barker, E. <i>et al.</i> (2006) The larynx as an immunological organ: immunological architecture in the pig as a large animal model. <a href="#">Clin Exp Immunol. 143: 6-14.</a></li><li>3. Silva-Campa, E. <i>et al.</i> (2009) Induction of T helper 3 regulatory cells by dendritic cells infected with porcine reproductive and respiratory syndrome virus. <a href="#">Virology. 387: 373-9.</a></li><li>4. Silva-Campa, E. <i>et al.</i> (2010) European genotype of porcine reproductive and respiratory syndrome (PRRSV) infects monocyte-derived dendritic cells but does not induce Treg cells. <a href="#">Virology. 396 (2): 264-71.</a></li><li>5. Kick, A.R. <i>et al.</i> (2011) Evaluation of peripheral lymphocytes after weaning and vaccination for <i>Mycoplasma hyopneumoniae</i>. <a href="#">Res Vet Sci. 91 (3): e68-72.</a></li></ol>                                                   |

6. LeRoith, T. *et al.* (2011) A modified live PRRSV vaccine and the pathogenic parent strain induce regulatory T cells in pigs naturally infected with *Mycoplasma hyopneumoniae*. [Vet Immunol Immunopathol. 140 \(3-4\): 312-6.](#)
7. Kuo, Y.R. *et al.* (2011) Prolongation of composite tissue allotransplant survival by treatment with bone marrow mesenchymal stem cells is correlated with T-cell regulation in a swine hind-limb model. [Plast Reconstr Surg. 127: 569-79.](#)
8. Young, D. *et al.* (2012) Soy-derived di- and tripeptides alleviate colon and ileum inflammation in pigs with dextran sodium sulfate-induced colitis. [J Nutr. 142: 363-8.](#)
9. Chattha, K.S. *et al.* (2013) Divergent immunomodulating effects of probiotics on T cell responses to oral attenuated human rotavirus vaccine and virulent human rotavirus infection in a neonatal gnotobiotic piglet disease model. [J Immunol. 191: 2446-56.](#)
10. Fan, B. *et al.* (2015) The 15N and 46R Residues of Highly Pathogenic Porcine Reproductive and Respiratory Syndrome Virus Nucleocapsid Protein Enhance Regulatory T Lymphocytes Proliferation. [PLoS One. 10 \(9\): e0138772.](#)
11. Singleton, H. *et al.* (2016) Establishing Porcine Monocyte-Derived Macrophage and Dendritic Cell Systems for Studying the Interaction with PRRSV-1. [Front Microbiol. 7: 832.](#)
12. Ferrari, L. *et al.* (2016) Phenotypic modulation of porcine CD14<sup>+</sup> monocytes, natural killer/natural killer T cells and CD8 $\alpha$  $\beta$ <sup>+</sup> T cell subsets by an antibody-derived killer peptide (KP). [Res Vet Sci. 109: 29-39.](#)
13. Suradhat, S. *et al.* (2016) Transdermal delivery of plasmid encoding truncated nucleocapsid protein enhanced PRRSV-specific immune responses. [Vaccine. 34 \(5\): 609-15.](#)
14. Williams, A.R. *et al.* (2016) Polymerization-dependent activation of porcine  $\gamma\delta$  T-cells by proanthocyanidins. [Res Vet Sci. 105: 209-15.](#)
15. Pan, H. *et al.* (2016) Lymphodepletive effects of rabbit anti-pig thymocyte globulin in neonatal swines. [Transpl Immunol. 39: 74-83.](#)
16. Sirisereewan, C. *et al.* (2017) Positive immunomodulatory effects of heterologous DNA vaccine- modified live vaccine, prime-boost immunization, against the highly-pathogenic PRRSV infection. [Vet Immunol Immunopathol. 183: 7-15.](#)
17. An, C.H. *et al.* (2018) Plant synthetic GP4 and GP5 proteins from porcine reproductive and respiratory syndrome virus elicit immune responses in pigs. [Planta. 247 \(4\): 973-85.](#)
18. Nedumpun, T. *et al.* (2019) Negative Immunomodulatory Effects of Type 2 Porcine Reproductive and Respiratory Syndrome Virus-Induced Interleukin-1 Receptor Antagonist on Porcine Innate and Adaptive Immune Functions. [Front Immunol. 10: 579.](#)
19. Christoforidou, Z. *et al.* (2019) Sexual Dimorphism in Immune Development and in Response to Nutritional Intervention in Neonatal Piglets. [Front Immunol. 10: 2705.](#)
20. Uehlein, S. *et al.* (2021) Human-like Response of Pig T Cells to Superagonistic Anti-CD28 Monoclonal Antibodies. [J Immunol. jii2100174.](#)
21. Schäfer, A. *et al.* (2021) T-cell responses in domestic pigs and wild boar upon infection with the moderately virulent African swine fever virus strain 'Estonia2014'. [Transbound Emerg Dis. 68 \(5\): 2733-49.](#)
22. Monguió-Tortajada, M. *et al.* (2022) Acellular cardiac scaffolds enriched with MSC-derived extracellular vesicles limit ventricular remodelling and exert local and systemic immunomodulation in a myocardial infarction porcine model. [Theranostics. 12 \(10\): 4656-4670.](#)
23. Nielsen, O.L. *et al.* (2022) A porcine model of subcutaneous *Staphylococcus aureus* infection: a pilot study. [APMIS. 130 \(7\): 359-70.](#)

24. Maciag, S.S. *et al.* (2022) On the influence of the source of porcine colostrum in the development of early immune ontogeny in piglets. [Sci Rep. 12 \(1\): 15630.](#)
25. Haach, V. *et al.* (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. [Virol J. 20 \(1\): 181.](#)
26. Bettin, L. *et al.* (2023) Co-stimulation by TLR7/8 ligand R848 modulates IFN- $\gamma$  production of porcine  $\gamma\delta$  T cells in a microenvironment-dependent manner. [Dev Comp Immunol. 138: 104543.](#)
27. Shimazu, T. *et al.* (2019) Addition of Wakame seaweed (*Undaria pinnatifida*) stalk to animal feed enhances immune response and improves intestinal microflora in pigs. [Anim Sci J. 90 \(9\): 1248-60.](#)
28. Amimo, J.O. *et al.* (2024) Maternal immunization and vitamin A sufficiency impact sow primary adaptive immunity and passive protection to nursing piglets against porcine epidemic diarrhea virus infection. [Front Immunol. 15: 1397118.](#)
29. Chen, Y. *et al.* (2025) ASFV activates STAT3 to induce proviral M2 macrophage polarization. [Vet Microbiol. 311: 110733.](#)
30. Tng, P.Y.L. *et al.* (2025) Early disruption of the innate-adaptive immune axis in vivo after infection with virulent Georgia 2007/1 ASFV. [Discov Immunol. 4 \(1\): kyaf014.](#)

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|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Further Reading</b>               | 1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. <a href="#">Vet Res. 39: 54.</a>                                                             |
| <b>Storage</b>                       | This product is shipped at ambient temperature.<br>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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1736SBV610">https://www.bio-rad-antibodies.com/SDS/MCA1736SBV610</a> |
| <b>Regulatory</b>                    | For research purposes only                                                                                                                                                           |

**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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