

## Datasheet: MCA1736GA

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|----------------------|---------------------|
| <b>Description:</b>  | MOUSE ANTI PIG CD25 |
| <b>Specificity:</b>  | CD25                |
| <b>Other names:</b>  | IL-2R ALPHA CHAIN   |
| <b>Format:</b>       | Purified            |
| <b>Product Type:</b> | Monoclonal Antibody |
| <b>Clone:</b>        | K231.3B2            |
| <b>Isotype:</b>      | IgG1                |
| <b>Quantity:</b>     | 0.1 mg              |

## 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             | ▪   |    |                | 1/25 - 1/200       |
| Immunohistology - Frozen   | ▪   |    |                |                    |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      |     |    | ▪              |                    |
| Immunoprecipitation        |     |    | ▪              |                    |
| Western Blotting           |     |    | ▪              |                    |

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.

|                                       |   |
|---------------------------------------|---|
| <b>Target Species</b>                 | Pig   |
| <b>Product Form</b>                   | Purified IgG - liquid   |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant |
| <b>Buffer Solution</b>                | Phosphate buffered saline   |
| <b>Preservative Stabilisers</b>       | 0.09% Sodium Azide (NaN <sub>3</sub> )  |
| <b>Carrier Free</b>                   | Yes   |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml   |
| <b>Immunogen</b>                      | Con A activated porcine peripheral blood lymphocytes.   |

**External Database  
Links**

**UniProt:**

[O02733](#)   [Related reagents](#)

**Entrez Gene:**

[396814](#)   IL2RA   [Related reagents](#)

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**Fusion Partners**

Spleen cells from immunised mice were fused with cells of the mouse P3-X63-Ag.8.653 myeloma cell line.

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**Specificity**

**Mouse anti Pig CD25, clone K231.3B2** recognizes porcine CD25, the alpha chain of the interleukin 2 receptor (IL-2R $\alpha$ ), also known as the low affinity Interleukin 2 receptor. The IL-2 receptor exists in three forms, the high affinity heterodimer, the intermediate affinity  $\beta$  monomer and the low affinity  $\alpha$  monomer configurations. Clone K231.3B2 was clustered as CD25 at the First International Workshop to Define Swine Cluster of Differentiation (CD) Antigens ([Lunney \*et al.\* 1994](#)).

Mouse anti pig CD25, clone K231.3B2 immunoprecipitates a protein of ~65-70 kDa from activated lymphocyte preparations ([Bailey \*et al.\* 1992](#)).

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 ([Bullido \*et al.\* 1999](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul

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**References**

1. Bailey, M. *et al.* (1992) A monoclonal antibody recognising an epitope associated with pig interleukin-2 receptors. [J Immunol Methods. 153 \(1-2\): 85-91.](#)
2. Silva-Campa, E. *et al.* (2010) European genotype of porcine reproductive and respiratory syndrome (PRRSV) infects monocyte-derived dendritic cells but does not induce Treg cells. [Virology. 396 \(2\): 264-71.](#)
3. Kick, A.R. *et al.* (2011) Evaluation of peripheral lymphocytes after weaning and vaccination for *Mycoplasma hyopneumoniae*. [Res Vet Sci. 91 \(3\): e68-72.](#)
4. Silva-Campa, E. *et al.* (2009) Induction of T helper 3 regulatory cells by dendritic cells infected with porcine reproductive and respiratory syndrome virus. [Virology. 387: 373-9.](#)
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6. Barker, E. *et al.* (2006) The larynx as an immunological organ: immunological architecture in the pig as a large animal model. [Clin Exp Immunol. 143: 6-14.](#)
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. Williams, A.R. *et al.* (2016) Polymerization-dependent activation of porcine  $\gamma\delta$  T-cells by

proanthocyanidins [Res Vet Sci. 105: 209-215.](#)

12. Suradhat, S. *et al.* (2016) Transdermal delivery of plasmid encoding truncated nucleocapsid protein enhanced PRRSV-specific immune responses. [Vaccine. 34 \(5\): 609-15.](#)

13. Pan, H. *et al.* (2016) Lymphodepletive effects of rabbit anti-pig thymocyte globulin in neonatal swines. [Transpl Immunol. Aug 22. pii: S0966-3274\(16\)30082-X. \[Epub ahead of print\]](#)

14. Ferrari, L. *et al.* (2016) Phenotypic modulation of porcine CD14+ monocytes, natural killer/natural killer T cells and CD8αβ+ T cell subsets by an antibody-derived killer peptide (KP) [Res Vet Sci. 109: 29-39.](#)

15. 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.](#)

16. 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.](#)

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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> |
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| <b>Storage</b> | Store at +4°C or at -20°C if preferred.<br>Storage in frost-free freezers is not recommended.<br>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
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| <b>Shelf Life</b> | 18 months from date of despatch |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br>10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> |
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|-------------------|----------------------------|
| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Secondary Antibodies

|   |   |
|---|---|
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>  |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®549</a> ,<br><a href="#">DyLight®649</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>   |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>  |
| Rabbit Anti Mouse IgG (STAR8...)        | <a href="#">DyLight®800</a>   |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>  |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |
| Human Anti Mouse IgG1 (HCA036...)       | <a href="#">HRP</a>   |

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

### Recommended Useful Reagents

[MOUSE ANTI PIG CD4 ALPHA:FITC \(MCA1749F\)](#)

[MOUSE ANTI PIG CD14:FITC \(MCA1218F\)](#)

[MOUSE ANTI PIG CD4 ALPHA:RPE \(MCA1749PE\)](#)

[MOUSE ANTI PIG wCD8 ALPHA:FITC \(MCA1223F\)](#)

[MOUSE ANTI PIG wCD8 ALPHA:RPE \(MCA1223PE\)](#)

[MOUSE ANTI PIG CD45:Alexa Fluor® 647 \(MCA1222A647\)](#)

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