

# Datasheet: MCA5972APC

**BATCH NUMBER INN1612**

|                      |                          |
|----------------------|--------------------------|
| <b>Description:</b>  | MOUSE ANTI PIG CD335:APC |
| <b>Specificity:</b>  | CD335                    |
| <b>Other names:</b>  | NKp46                    |
| <b>Format:</b>       | APC                      |
| <b>Product Type:</b> | Monoclonal Antibody      |
| <b>Clone:</b>        | VIV-KM1                  |
| <b>Isotype:</b>      | IgG1                     |
| <b>Quantity:</b>     | 100 TESTS                |

## 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 Allophycocyanin (APC) - lyophilised            |                     |                   |
| Reconstitution           | Reconstitute with 1.0 ml distilled water                                  |                     |                   |
| Max Ex/Em                | Fluorophore   | Excitation Max (nm) | Emission Max (nm) |
|                          | APC   | 650                 | 661               |
| Preparation              | Purified IgG prepared by affinity chromatography on Protein A supernatant |                     |                   |
| Buffer Solution          | Phosphate buffered saline   |                     |                   |
| Preservative Stabilisers | 0.09% Sodium Azide (NaN <sub>3</sub> )<br>1% Bovine Serum Albumin         |                     |                   |

|                        |   |
|------------------------|---|
| <b>Immunogen</b>       | Fusion protein consisting of the extracellular region of porcine CD335  |
| <b>Fusion Partners</b> | Spleen cells from immunised Balb/c mice were fused with cells of the SP2/0 myeloma cell line  |
| <b>Specificity</b>     | <p><b>Mouse anti Pig CD335 antibody, clone VIV-KM1</b> recognizes the porcine homologue of human CD335, also known as NKp46 and natural cytotoxicity triggering receptor 1 (NCR1), a member of the natural cytotoxicity receptor (NCR) family.</p> <p>CD335 is a type I transmembrane protein, with two extracellular C2-type immunoglobulin-like domains, which functions as an activating receptor and is involved in the control of viral infection and tumor development.</p> <p>Until recently little has been known about porcine and veterinary NK cells. CD335 is expressed by human natural killer cells (<a href="#">Sivori, S. et al. 1997</a>) and the development of monoclonal antibodies to bovine CD335 (clone ASK1) (<a href="#">Storset et al. 2004</a>) and ovine CD335 (clone EC1.1) (<a href="#">Connelley et al. 2011</a>) have enabled researchers to identify and better understand ruminant NK cells. Clone VIV-KM1 is the first monoclonal developed to specifically identify porcine CD335 and provides a reagent to facilitate a better understanding of the pig immune system and aid in the understanding of the role of NK cells in host pathogen defense. Studies using VIV-KM1 have shown that, within the pig, CD335 is not universally expressed by all NK cells and that expression of this marker on NK cells may be influenced by cytokine production (<a href="#">Mair et al. 2012</a>).</p> <p>In addition to clone VIV-KM1, clones AKS1, which recognizes CD335 (NKp46) in bovine and other ruminants, and EC1.1, which recognizes ovine and caprine CD335, are also available from Bio-Rad.</p> |
| <b>Flow Cytometry</b>  | Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul  |
| <b>References</b>      | <ol style="list-style-type: none"> <li>1. Forberg, H. et al. (2014) Early responses of natural killer cells in pigs experimentally infected with 2009 pandemic H1N1 influenza A virus. <a href="#">PLoS One. 9 (6): e100619.</a></li> <li>2. Mair, K.H. et al. (2013) Porcine CD8αdim/-NKp46high NK cells are in a highly activated state. <a href="#">Vet Res. 44: 13.</a></li> <li>3. Mair, K.H. et al. (2012) NKp46 expression discriminates porcine NK cells with different functional properties. <a href="#">Eur J Immunol. 42 (5): 1261-71.</a></li> <li>4. Yang, G. et al. (2017) Characterizing porcine invariant natural killer T cells: A comparative study with NK cells and T cells. <a href="#">Dev Comp Immunol. 76: 343-51.</a></li> </ol>  |
| <b>Further Reading</b> | <ol style="list-style-type: none"> <li>1. Connelley, T. et al. (2011) NKp46 defines ovine cells that have characteristics corresponding to NK cells. <a href="#">Vet Res. 42: 37.</a></li> <li>2. Storset, A.K. et al. (2004) NKp46 defines a subset of bovine leukocytes with natural killer cell characteristics. <a href="#">Eur J Immunol. 34 (3): 669-76.</a></li> <li>3. Sivori, S. et al. (1997) p46, a novel natural killer cell-specific surface molecule that mediates cell activation. <a href="#">J Exp Med. 186 (7): 1129-36.</a></li> </ol>   |

**Storage** Prior to reconstitution store at +4°C.  
After reconstitution store at +4°C.  
DO NOT FREEZE.  
This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #20487 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA5972APC>  
20487

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:APC \(MCA928APC\)](#)

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Email: [antibody\\_sales\\_de@bio-rad.com](mailto: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](https://www.bio-rad-antibodies.com/datasheets)

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