Datasheet: MCA2365GA

**Description:** MOUSE ANTI BOVINE CD335

**Specificity:** CD335

**Other names:** NKp46

**Format:** Purified

**Product Type:** Monoclonal Antibody

**Clone:** AKS1

**Isotype:** IgG1

**Quantity:** 0.1 mg

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**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).

<table>
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<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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<tbody>
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<td>Flow Cytometry</td>
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<td></td>
<td></td>
<td>1/50 - 1/200</td>
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<td>Immunohistology - Frozen</td>
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<td>Immunohistology - Paraffin</td>
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<td>ELISA</td>
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<tr>
<td>Immunofluorescence</td>
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Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system to a concentration equivalent to their test reagent.

**Target Species**

Bovine

**Species Cross Reactivity**

Reacts with: American Bison

**N.B.** Antibody reactivity and working conditions may vary between species.

**Product Form**

Purified IgG - liquid

**Preparation**

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

**Buffer Solution**

Phosphate buffered saline

**Preservative Stabilisers**

0.09% Sodium Azide (NaN₃)

**Carrier Free**

Yes

**Approx. Protein Concentrations**

IgG concentration 1.0 mg/ml
Immunogen
Fusion protein consisting of the extracellular region of bovine CD335.

External Database Links
UniProt: Q863H2

Entrez Gene:
369024 NCR1

Fusion Partners
Spleen cells from immunised Balb/c mice were fused with cells of the NS-0 myeloma cell line.

Specificity
Mouse anti Bovine CD335 antibody, clone AKS1 recognizes bovine CD335, also known as NKp46 and Natural cytotoxicity triggering receptor 1. CD335 is a type I transmembrane protein, with two extracellular C2-type immunoglobulin-like domains, which functions as an activating receptor. CD335 is expressed by human natural killer cells (Sivori et al. 1997). The bovine homologue is expressed on bovine NK cells (Storset et al. 2004) and no expression of CD335 has been detected on B cells, T cells, monocytes or granulocytes.

Clone AKS1 is reported to activate lysis of FcgammaR-expressing cell line P815, by IL-2 activated NKp46+ cells (Storset et al. 2004).

Flow Cytometry
Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References
14. Boysen, P. et al. (2008) Natural killer cells in lymph nodes of healthy calves express CD16 and
show both cytotoxic and cytokine-producing properties. Dev Comp Immunol. 32 (7): 773-83.
25. Ohira K et al. (2016) Bovine leukemia virus reduces anti-viral cytokine activities and NK cytotoxicity by inducing TGF-β secretion from regulatory T cells. Cytokine. 87: 81-86.
30. Steinbach, S. et al. (2016) CD4+ and γδ T Cells are the main Producers of IL-22 and IL-17A in Lymphocytes from Mycobacterium bovis-infected Cattle. Sci Rep. 6: 29990.

Further Reading

Storage
Store at +4°C or at -20°C if preferred.
This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life**  
18 months from date of despatch.

**Health And Safety Information**  
Material Safety Datasheet documentation #10040 available at:  

**Regulatory**  
For research purposes only

### Recommended Products

**Recommended Secondary Antibodies**

- Goat Anti Mouse IgG IgA IgM (STAR87...)  
  - alk. Phos., HRP
- Goat Anti Mouse IgG (STAR77...)  
  - HRP
- Rabbit Anti Mouse IgG (STAR12...)  
  - RPE
- Rabbit Anti Mouse IgG (STAR8...)  
  - DyLight®800
- Rabbit Anti Mouse IgG (STAR13...)  
  - HRP
- Goat Anti Mouse IgG (STAR76...)  
  - RPE
- Goat Anti Mouse IgG (STAR70...)  
  - FITC
- Goat Anti Mouse IgG (H/L) (STAR117...)  
  - alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP
- Goat Anti Mouse IgG (Fc) (STAR120...)  
  - FITC, HRP
- Rabbit Anti Mouse IgG (STAR9...)  
  - FITC
- Human Anti Mouse IgG1 (HCA036...)  
  - HRP

**Recommended Negative Controls**

- MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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