**Description:** MOUSE ANTI BOVINE CD4

**Specificity:** CD4

**Format:** Purified

**Product Type:** Monoclonal Antibody

**Clone:** CC8

**Isotype:** IgG2a

**Quantity:** 0.1 mg

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## Product Details

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>
<thead>
<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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</thead>
<tbody>
<tr>
<td>Flow Cytometry</td>
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<td></td>
<td></td>
<td>1/100 - 1/200</td>
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<tr>
<td>Immunohistology - Frozen</td>
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<tr>
<td>Immunohistology - Paraffin</td>
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<td>ELISA</td>
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<td>Immunoprecipitation</td>
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<td>Western Blotting</td>
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</table>

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

**Target Species:** Bovine

**Product Form:** Purified IgG - liquid

**Preparation:** Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

**Buffer Solution:** Phosphate buffered saline

**Preservative Stabilisers:** 0.09% Sodium Azide

**Carrier Free:** Yes
Approx. Protein Concentrations | IgG concentration 1.0 mg/ml
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Immunogen | Bovine lymphocytes.
External Database Links | UniProt: A7YY52 Related reagents
Fusion Partners | Spleen cells from an immunized mouse were fused with cells of the mouse NS1 myeloma cell line.
Specificity | **Mouse anti Bovine CD4 antibody, clone CC8** recognizes bovine CD4, the homolog of human CD4 and immunoprecipitates a ~50 kDa molecule. The phenotype, tissue distribution and function of T-cells expressing the bovine CD4 antigen are similar to those in other species. However, expression on macrophages has not yet been detected. Clone CC8 has been reported as being suitable for use on formalin dichromate (FD5) fixed paraffin embedded tissue with amplification and antigen retrieval techniques (Eskra et al., 1991).

A mutation in the bovine CD4 gene resulting in an amino acid substitution at A324 T, located in the D4 domain of the CD4 gene product can occur. This mutation results in lowered binding of Mouse anti Bovine CD4 antibody, clone CC8 to CD4 in Japanese Black (JB) cattle where this mutation has been identified (Kato-Mori, et al., 2020). CD4 in JB cattle can be identified using clone CACT138A (MCA6081) whose binding to bovine CD4 is unaffected by the A324T mutation (Kato-Mori, et al., 2020).

Flow Cytometry | Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References
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11. Hu, X.D. et al. (2009) Immunotherapy with combined DNA vaccines is an effective treatment for *M. bovis* infection in cattle *Vaccine.* **27:** 1317-22.


25. Okagawa, T. et al. (2016) Cooperation of PD-1 and LAG-3 Contributes to T-Cell
35. Metcalfe, H.J. *et al.* (2016) Protection associated with a TB vaccine is linked to increased frequency of Ag85A-specific CD4(+) T cells but no increase in avidity for Ag85A. *Vaccine.* 34 (38): 4520-5.

**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.

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<tr>
<th>Guarantee</th>
<th>12 months from date of despatch</th>
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**Health And Safety Information**

| Material Safety Datasheet documentation #10040 available at: |
| 10040 |

**Related Products**

**Recommended Secondary Antibodies**

- Rabbit Anti Mouse IgG (STAR12...) **RPE**
- Goat Anti Mouse IgG IgA IgM (STAR87...) **HRP**
- Goat Anti Mouse IgG (STAR76...) **RPE**
- Rabbit Anti Mouse IgG (STAR13...) **HRP**
- Goat Anti Mouse IgG (STAR70...) **FITC**
- Goat Anti Mouse IgG (H/L) (STAR117...) **Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP**
- Rabbit Anti Mouse IgG (STAR9...) **FITC**
- Goat Anti Mouse IgG (STAR77...) **HRP**
- Goat Anti Mouse IgG (Fc) (STAR120...) **FITC, HRP**

**Recommended Negative Controls**

**MOUSE IgG2a NEGATIVE CONTROL (MCA929)**

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets) ‘M365579:200529’

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