Datasheet: MCA1749GA

Description: MOUSE ANTI PIG CD4 ALPHA

Specificity: CD4 ALPHA

Other names: CD4

Format: Purified

Product Type: Monoclonal Antibody

Clone: MIL17

Isotype: IgG2b

Quantity: 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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Cytometry</td>
<td></td>
<td></td>
<td></td>
<td>1/25 - 1/200</td>
</tr>
<tr>
<td>Immunohistology - Frozen (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immunohistology - Paraffin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELISA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immunoprecipitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Blotting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

(1) The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.

Target Species: Pig

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 (NaN₃)

Carrier Free: Yes

Approx. Protein Concentrations: IgG concentration 1.0 mg/ml
<table>
<thead>
<tr>
<th>Immunogen</th>
<th>Leucocytes isolated from porcine gut lamina propria.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specificity</td>
<td><strong>Mouse anti Porcine CD4 alpha, clone MIL17</strong> recognizes a ~55 kDa porcine homologue to the human CD4 antigen found on the surface of helper-T cells. MIL-17 was confirmed as a member of the CD4 alpha cluster at the ‘Third International Workshop on Swine Leukocyte Differentiation Antigens’ (<a href="https://doi.org/10.1053/j.vetimm.2001.03.039">Haverson et al. 2001</a>). Porcine CD4 is a type 1 trans-membrane member of the immunoglobulin superfamly. Pigs appear unusual amongst mammalian species as they appear to have four populations of resting T lymphocytes. In addition to the two populations of mutually exclusive CD4+/CD8- and CD4-/CD8+ lymphocytes, they also appear to have significant populations of CD4-/CD8- and CD4+/CD8+ cells. Lymphoblasts with a double positive phenotype have been described in other species but this is not the case for mature T lymphocytic calls (<a href="https://doi.org/10.1080/10409238709550477">Saalmüller et al. 1987</a>). Mouse anti Pig CD4 alpha, clone MIL17 stains a population of cells with characteristic lymphocyte morphology in immunohistochemistry (<a href="https://doi.org/10.1016/j.jlb.2010.01.004">Inman et al. 2010</a>).</td>
</tr>
<tr>
<td>Flow Cytometry</td>
<td>Use 10ul of the suggested working dilution to label $10^6$ cells in 100ul</td>
</tr>
</tbody>
</table>

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.

### Guarantee
18 months from date of despatch

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

### Regulatory
For research purposes only

### Related 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 (Fc) (STAR120...) [FITC, HRP]
- Rabbit Anti Mouse IgG (STAR9...) [FITC]
- Human Anti Mouse IgG2b (HCA038...) [FITC]
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos., DyLight®488, DyLight®680, DyLight®800, FITC, HRP]

#### Recommended Negative Controls

- MOUSE IgG2b NEGATIVE CONTROL (MCA691)

#### Recommended Useful Reagents

- MOUSE ANTI PIG CD45 (MCA1222GA)
- MOUSE ANTI PIG wcD8 ALPHA (MCA1223GA)
- RAT ANTI HUMAN CD3 (MCA1477)