Datasheet: MCA5951EL

**Description:**
MOUSE ANTI PIG CD3:Low Endotoxin

**Specificity:**
CD3 EPSILON

**Format:**
Low Endotoxin

**Product Type:**
Monoclonal Antibody

**Clone:**
PPT3

**Isotype:**
IgG1

**Quantity:**
0.5 mg

---

**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>
<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>1/50 - 1/200</td>
</tr>
<tr>
<td>Immunohistology - Frozen</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>
<tr>
<td>Functional Assays</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.

**Target Species**
Pig

**Species Cross Reactivity**
Does not react with: Bovine, Goat, Horse, Human, Sheep

**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**
None present

**Carrier Free**
Yes

**Endotoxin Level**
<0.01EU/ug

**Approx. Protein**
IgG concentration 1.0 mg/ml
### Concentrations

| **Immunogen** | Porcine PBMCs |

### External Database Links

<table>
<thead>
<tr>
<th>UniProt:</th>
<th>Q7YRN2</th>
<th>Related reagents</th>
</tr>
</thead>
</table>

| Entrez Gene: | 397455  | CD3E  | Related reagents |

### Fusion Partners

Lymph node cells from immunised BALB/c mice were fused with cells of the NS0 myeloma cell line.

### Specificity

**Mouse anti Pig CD3, clone PPT3** recognizes the porcine homologue of human CD3ε, a 24 kDa single pass type I membrane protein expressed by T-lymphocytes. Clone PPT3, also known under the clone designation FY1H2, was clustered at the second international swine CD workshop and found to specifically recognise an epitope on the porcine CD3ε designated as CD3c (Pescovitz, M.D., et al. 1998).

CD3 is a multimeric protein complex composed of four distinct polypeptide chains (ε, γ, δ, ζ) that assemble and function as three pairs of dimers (εγ, εδ, ζζ). The CD3 complex serves as a T cell co-receptor that associates non-covalently with the T cell receptor (TCR) (Guy, C.S & Vignali, D.G. 2009). CD3 is a defining feature of cells belonging to the T cell lineage, antibodies recognising pig CD3 therefore provide useful markers of porcine T cells.

Clone PPT3 has been demonstrated to recognise an epitope that is expressed both intracellularly and extracellularly, additionally clone PPT3 has been demonstrated to activate α/β T-cells (Kirkham P.A., et al. 1996).

Clone PPT3 was tested on PBL from a range of other mammalian species and found to be negative suggesting that the epitope recognised by this clone is specific to porcine (Yang, H. et al. 1996).

### Flow Cytometry

Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.

### References


### Further Reading


### Storage

Store at -20°C only. Storage in frost-free freezers is not recommended. 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.
Guarantee
18 months from date of despatch

Health And Safety Information
Material Safety Datasheet documentation #10162 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

Goat Anti Mouse IgG (H/L) (STAR117...)
Alk. Phos., DyLight®488, DyLight®680,
DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin (MCA928EL)

Recommended Useful Reagents

MOUSE ANTI PIG CD4 ALPHA:FITC (MCA1749F)

MOUSE ANTI PIG CD4 ALPHA:RPE (MCA1749PE)

MOUSE ANTI PIG wCD8 ALPHA:FITC (MCA1223F)

MOUSE ANTI PIG wCD8 ALPHA:RPE (MCA1223PE)