

## Datasheet: MCA1267EL

|                      |                                    |
|----------------------|------------------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD4:Low Endotoxin |
| <b>Specificity:</b>  | CD4                                |
| <b>Format:</b>       | Low Endotoxin                      |
| <b>Product Type:</b> | Monoclonal Antibody                |
| <b>Clone:</b>        | RPA-T4                             |
| <b>Isotype:</b>      | IgG1                               |
| <b>Quantity:</b>     | 0.5 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](http://www.bio-rad-antibodies.com/protocols).

|                              | Yes | No | Not Determined | Suggested Dilution |
|------------------------------|-----|----|----------------|--------------------|
| Flow Cytometry               | ■   |    |                | 1/50 - 1/100       |
| Immunohistology - Frozen (1) | ■   |    |                | 1/200 - 1/2000     |
| Immunohistology - Paraffin   |     | ■  |                |                    |
| ELISA                        |     |    | ■              |                    |
| Immunoprecipitation          |     |    | ■              |                    |
| Western Blotting             |     |    | ■              |                    |
| Functional Assays            | ■   |    |                |                    |

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.

**(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.**

|                                       |                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Target Species</b>                 | Human                                                                                         |
| <b>Product Form</b>                   | Purified IgG - liquid                                                                         |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant |
| <b>Buffer Solution</b>                | Phosphate buffered saline                                                                     |
| <b>Preservative Stabilisers</b>       | None present                                                                                  |
| <b>Carrier Free</b>                   | Yes                                                                                           |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml                                                                   |

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen</b>                         | Human PHA blasts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>External Database Links</b>           | <p><b>UniProt:</b><br/> <a href="#">P01730</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">920</a>   CD4   <a href="#">Related reagents</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Fusion Partners</b>                   | Spleen cells from immunised BALB/c mice were fused with cells of the mouse NSI myeloma cell line                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Specificity</b>                       | <p><b>Mouse anti human CD4 antibody, clone RPA-T4</b> recognizes human CD4, a 55 kDa cell surface glycoprotein that is primarily expressed on a subpopulation of T lymphocytes, on peripheral blood monocytes and on tissue macrophages. Epitope mapping studies have shown that antibodies, produced by clone RPA-T4, recognize an epitope within domain 1 of the extracellular region of the CD4 molecule.</p> <p>Mouse anti human CD4 antibody, clone RPA-T4 has been reported to block gp120-CD4 interaction and inhibit syncytium formation, see Piatier-Tonneau <i>et al</i>, 1997 for details. Bio-Rad recommend the use of <a href="#">Mouse anti Human CD4:Low Endotoxin (MCA1267EL)</a> for this purpose.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Flow Cytometry</b>                    | Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Histology Positive Control Tissue</b> | Human lymphatic tissue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>References</b>                        | <ol style="list-style-type: none"> <li>1. Zarkesh-Esfahani, H. <i>et al.</i> (2001) High-dose leptin activates human leukocytes via receptor expression on monocytes. <a href="#">J Immunol. 167 (8): 4593-9.</a></li> <li>2. Voehringer, D. <i>et al.</i> (2002) Lack of proliferative capacity of human effector and memory T cells expressing killer cell lectinlike receptor G1 (KLRG1). <a href="#">Blood. 100 (10): 3698-702.</a></li> <li>3. Piatier-Tonneau, D. (1997) CD4 workshop panel report. In: Leucocyte Typing VI: White Cell Differentiation Antigens: Proceedings of the Sixth International Workshop and Conference Held in Kobe, Japan, 10-14 November 1996. Garland Pub., 1998.</li> <li>4. Pentón-Rol, G. <i>et al.</i> (2011) C-Phycocyanin ameliorates experimental autoimmune encephalomyelitis and induces regulatory T cells. <a href="#">Int Immunopharmacol. 11 (1): 29-38.</a></li> <li>5. Wright, G.J. <i>et al.</i> (2001) The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans. <a href="#">Immunology. 102 (2): 173-9.</a></li> <li>6. Zhang, Y. <i>et al.</i> (2013) Accelerated <i>In Vivo</i> Proliferation of Memory Phenotype CD4+ T-cells in Human HIV-1 Infection Irrespective of Viral Chemokine Co-receptor <a href="#">PLoS Pathog 9(4): e1003310.</a></li> <li>7. Bughani, U. <i>et al.</i> (2017) T cell activation and differentiation is modulated by a CD6 domain 1 antibody Itolizumab. <a href="#">PLoS One. 12 (7): e0180088.</a></li> </ol> |
| <b>Storage</b>                           | <p>Store at -20°C only.</p> <p>This product should be stored undiluted.</p> <p>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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Shelf Life</b>                        | 18 months from date of despatch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

**Health And Safety  
Information**

Material Safety Datasheet documentation #10162 available at:  
10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

**Regulatory**

For research purposes only

## Related Products

### Recommended Secondary Antibodies

|                                         |                                                                                                                                                                                                                                     |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>                                                                                                                                                                                    |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>                                                                                                                                                                                                                |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>                                                                                                                                                                                          |
| Rabbit Anti Mouse IgG (STAR8...)        | <a href="#">DyLight®800</a>                                                                                                                                                                                                         |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>                                                                                                                                                                                                                |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Human Anti Mouse IgG1 (HCA036...)       | <a href="#">HRP</a>                                                                                                                                                                                                                 |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®549</a> ,<br><a href="#">DyLight®649</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin \(MCA928EL\)](#)

|                                      |                                                                                                                                         |                  |                                                                                                                                                 |               |                                                                                                                                                     |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
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