Datasheet: MCA4635A488T

Description: RAT ANTI MOUSE CD4:Alexa Fluor® 488

Specificity: CD4

Other names: L3T4 ANTIGEN, LY-4

Format: ALEXA FLUOR® 488

Product Type: Monoclonal Antibody

Clone: GK1.5

Isotype: IgG2b

Quantity: 25 TESTS/0.25ml

Product Details

RRID: AB_2075569

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>
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<td>Neat - 1/10</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: Mouse

Product Form: Purified IgG conjugated to Alexa Fluor 488 - liquid

Max Ex/Em

<table>
<thead>
<tr>
<th>Fluorophore</th>
<th>Excitation Max (nm)</th>
<th>Emission Max (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexa Fluor®488</td>
<td>495</td>
<td>519</td>
</tr>
</tbody>
</table>

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)
- 1% Bovine Serum Albumin

Approx. Protein Concentrations: IgG concentration 0.05mg/ml

Immunogen: Murine CD4.

External Database Links: UniProt:
Fusion Partners
Spleen cells from immunised Lewis rats were fused with cells of the SP2/0 myeloma cell line.

Specificity
Rat anti Mouse CD4 antibody, clone GK1.5 recognizes mouse CD4, a ~55 kDa protein also known as Ly-4 and L3T4. CD4 is a single chain transmembrane glycoprotein which belongs to the immunoglobulin superfamily, and is primarily expressed on T helper cells, peripheral blood monocytes and tissue macrophages. CD4 is also expressed on a subpopulation of regulatory T cells (CD4+ CD25+), which play a key role in the maintenance of self tolerance.

Rat anti Mouse CD4 antibody, clone GK1.5 has been reported to block CD4+ T-cell activation. It blocks class II MHC antigen-specific binding, thereby inhibiting functions such as class II MHC antigen-specific proliferation and the release of lymphokines. It may also be used for in vivo and in vitro cell depletion of CD4+ T-cells.

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

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).

References
11. Olesen, M. N. et al. (2018) CD4 T cells react to local increase of α-synuclein in a pathology-
associated variant-dependent manner and modify brain microglia in absence of brain pathology

Heliyon. 4 (1): e00513.

### Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

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.

### Acknowledgements

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### Health And Safety

Material Safety Datasheet documentation #10041 available at:


### Regulatory

For research purposes only

### Related Products

**Recommended Useful Reagents**

- MOUSE SEROBLOCK FcR (BUF041A)
- MOUSE SEROBLOCK FcR (BUF041B)