

Datasheet: MCA2691AMO

BATCH NUMBER 149521

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|----------------------|------------------------------------|
| Description: | RAT ANTI MOUSE CD4:Amethyst Orange |
| Specificity: | CD4 |
| Other names: | L3T4 ANTIGEN, LY-4 |
| Format: | Amethyst Orange |
| Product Type: | Monoclonal Antibody |
| Clone: | RM4-5 |
| Isotype: | IgG2a |
| 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.

| | Yes | No | Not Determined | Suggested Dilution |
|----------------|-----|----|----------------|--------------------|
| Flow Cytometry | ▪ | | | Neat |

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 | Mouse | | | | | | |
|---------------------------------|---|-------------------|---------------------|-------------------|-----------------|-----|-----|
| Product Form | Purified IgG conjugated to Amethyst Orange - liquid | | | | | | |
| Max Ex/Em | <table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Amethyst Orange</td> <td>405</td> <td>540</td> </tr> </tbody> </table> | Fluorophore | Excitation Max (nm) | Emission Max (nm) | Amethyst Orange | 405 | 540 |
| Fluorophore | Excitation Max (nm) | Emission Max (nm) | | | | | |
| Amethyst Orange | 405 | 540 | | | | | |
| 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 (NaN ₃) 1% Bovine Serum Albumin | | | | | | |
| Approx. Protein | IgG concentration 0.1 mg/ml | | | | | | |

Concentrations

Immunogen BALB/c mouse thymocytes

External Database Links

UniProt:

[P06332](#) [Related reagents](#)

Entrez Gene:

[12504](#) Cd4 [Related reagents](#)

Specificity

Rat anti Mouse CD4 antibody, clone RM4-5 detects 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 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 RM4-5 can be used for *in vitro* blocking of ligand binding, as well as *in vitro* CD4⁺ T cell depletions.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1x10⁶ 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

1. Fehérvári, Z. & Sakaguchi, S. (2004) CD4⁺ Tregs and immune control. [J Clin Invest. 114 \(9\): 1209-17.](#)
 2. von Kutzleben, S. *et al.* (2017) Depletion of CD52-positive cells inhibits the development of central nervous system autoimmune disease, but deletes an immune-tolerance promoting CD8 T-cell population. Implications for secondary autoimmunity of alemtuzumab in multiple sclerosis. [Immunology. 150 \(4\): 444-55.](#)
 3. Zamudio, F. *et al.* (2020) TDP-43 mediated blood-brain barrier permeability and leukocyte infiltration promote neurodegeneration in a low-grade systemic inflammation mouse model. [J Neuroinflammation. 17 \(1\): 283.](#)
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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

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2691AMO>

Related Products

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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