

## Datasheet: MCA1304G

|                      |                              |
|----------------------|------------------------------|
| <b>Description:</b>  | RAT ANTI MOUSE INTERLEUKIN-4 |
| <b>Specificity:</b>  | IL-4                         |
| <b>Format:</b>       | Purified                     |
| <b>Product Type:</b> | Monoclonal Antibody          |
| <b>Clone:</b>        | BVD4-1D11                    |
| <b>Isotype:</b>      | IgG2b                        |
| <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)         | ■   |    |                | 1/10 - 1/50        |
| Immunohistology - Frozen   | ■   |    |                |                    |
| Immunohistology - Paraffin |     |    | ■              |                    |
| ELISA                      | ■   |    |                | 1ug/ml - 5ug/ml    |
| Immunoprecipitation        |     |    | ■              |                    |
| Western Blotting           | ■   |    |                | 1ug/ml - 5ug/ml    |

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) **Membrane permeabilization is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

|                                 |                                                                                               |
|---------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Target Species</b>           | Mouse                                                                                         |
| <b>Species Cross Reactivity</b> | Does not react with:Rat                                                                       |
| <b>Product Form</b>             | Purified IgG - liquid                                                                         |
| <b>Preparation</b>              | Purified IgG prepared by affinity chromatography on protein G from tissue culture supernatant |
| <b>Buffer Solution</b>          | Phosphate buffered saline                                                                     |
| <b>Preservative Stabilisers</b> | 0.09% Sodium Azide                                                                            |
| <b>Carrier Free</b>             | Yes                                                                                           |
| <b>Approx. Protein</b>          | IgG concentration 1.0 mg/ml                                                                   |

## Concentrations

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|                  |                         |
|------------------|-------------------------|
| <b>Immunogen</b> | Recombinant Mouse IL-4. |
|------------------|-------------------------|

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## External Database Links

### UniProt:

[P07750](#)

[Related reagents](#)

### Entrez Gene:

[16189](#)

IL4

[Related reagents](#)

## Synonyms

IL-4

## Fusion Partners

Spleen cells from immunized BALB/c mice were fused with cells of the mouse P3.X63 Ag8.653 myeloma cell line.

## Specificity

**Rat anti Mouse Interleukin-4 antibody, clone BVD4-1D11** recognizes natural and recombinant mouse IL-4. 99% pure by SDS-PAGE.

Clone BVD4-1D11 is reported to neutralise IL-4 activity ([Abrams et al., 1992](#)).

## Flow Cytometry

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

## References

1. Abrams, J.S. *et al.* (1992) Strategies of anti-cytokine monoclonal antibody development: immunoassay of IL-10 and IL-5 in clinical samples. [Immunol Rev. 127: 5-24.](#)
2. Sander, B. *et al.* (1993) Similar frequencies and kinetics of cytokine producing cells in murine peripheral blood and spleen. Cytokine detection by immunoassay and intracellular immunostaining. [J Immunol Methods. 166 \(2\): 201-14.](#)
3. Hochrein, H. *et al.* (2000) Interleukin (IL)-4 is a major regulatory cytokine governing bioactive IL-12 production by mouse and human dendritic cells. [J Exp Med. 192 \(6\): 823-33.](#)
4. Pechova, J. *et al.* (2004) Effect of tick salivary gland extract on the cytokine production by mouse epidermal cells. [Folia Parasitol \(Praha\). 51: 367-72.](#)
5. Finkelman, F.D. *et al.* (2000) Stat6 regulation of *in vivo* IL-4 responses. [J Immunol. 164: 2303-10.](#)
6. Hochrein, H. *et al.* (2000) Interleukin (IL)-4 is a major regulatory cytokine governing bioactive IL-12 production by mouse and human dendritic cells. [J Exp Med. 192: 823-33.](#)
7. Urban, J.F. Jr. *et al.* (2000) Stat6 signaling promotes protective immunity against *Trichinella spiralis* through a mast cell- and T cell-dependent mechanism. [J Immunol. 164: 2046-52.](#)
8. Yang, Y.F. *et al.* (2000) Requirement for IFN-gamma in IL-12 production induced by collaboration between  $\nu(\alpha)14(+) \text{ NKT}$  cells and antigen-presenting cells. [Int Immunol. 12: 1669-75.](#)
9. Pechová, J. *et al.* (2004) Effect of tick salivary gland extract on the cytokine production by mouse epidermal cells. [Folia Parasitol \(Praha\). 51: 367-72.](#)
10. Roy, E. *et al.* (2008) Beneficial effect of anti-interleukin-4 antibody when administered in a murine model of tuberculosis infection. [Tuberculosis \(Edinb\). 88: 197-202.](#)

## 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.

|                                      |                                                                                                                                                                                                          |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Shelf Life</b>                    | 18 months from date of despatch.                                                                                                                                                                         |
| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br>10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> |
| <b>Regulatory</b>                    | For research purposes only                                                                                                                                                                               |

## Related Products

### Recommended Secondary Antibodies

|                                                |                                                                                         |
|------------------------------------------------|-----------------------------------------------------------------------------------------|
| Rabbit Anti Rat IgG (STAR16...)                | <a href="#">DyLight®800</a>                                                             |
| Goat Anti Rat IgG (STAR73...)                  | <a href="#">RPE</a>                                                                     |
| Rabbit Anti Rat IgG (STAR21...)                | <a href="#">HRP</a>                                                                     |
| Rabbit Anti Rat IgG (STAR17...)                | <a href="#">FITC</a>                                                                    |
| Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) | <a href="#">DyLight®549</a> , <a href="#">DyLight®649</a> , <a href="#">DyLight®800</a> |
| Goat Anti Rat IgG (STAR131...)                 | <a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>                                     |
| Goat Anti Rat IgG (STAR69...)                  | <a href="#">FITC</a>                                                                    |
| Goat Anti Rat IgG (STAR72...)                  | <a href="#">HRP</a>                                                                     |

|                                  |                                                                                                                                         |                  |                                                                                                                                                 |               |                                                                                                                                                     |
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'M315234:180503'

**Printed on 05 May 2018**