# Datasheet: MCA2348A488

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| **Description:** | RAT ANTI MOUSE CD23:Alexa Fluor® 488 |
| **Specificity:** | CD23 |
| **Other names:** | FceRII |
| **Format:** | ALEXA FLUOR® 488 |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | B3B4 |
| **Isotype:** | IgG2a |
| **Quantity:** | 100 TESTS/1ml |

## 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 - 1/10 |

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. 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**

| Fluorophore | Excitation (nm) | Emission (nm) |
|---|---|---|
| Alexa Fluor®488 | 495 | 519 |

**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
1% Bovine Serum Albumin

**Approx. Protein Concentrations**

IgG concentration 0.05 mg/ml

**Immunogen**

Fc epsilon R isolated from the 01.2B2 mouse B cell hybridoma.

**External Database Links**

**UniProt:**
P20693 Related reagents

**Entrez Gene:**
14128 Fcer2a Related reagents

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| **Synonyms** | Fcer2a |
| **Fusion Partners** | Spleen cells from immunised Lou/m rats were fused with cells of the rat 1R983F myeloma cell line. |
| **Specificity** | **Rat anti Mouse CD23 antibody, clone B3B4** recognizes murine CD23, the ~49 kDa low affinity Fc receptor for IgE (Fc epsilon RII). In the mouse, CD23 is primarily expressed on mature B lymphocytes and follicular dendritic cells. CD23 is known to play an important role in IgE binding but reports suggest that CD23 may also be involved in B-cell proliferation and differentiation.<br><br>Rat anti Mouse CD23 antibody, clone B3B4 is reported to block the binding of IgE to Fc epsilon RII (Rao, M. *et al.*). |
| **Flow Cytometry** | Use 10ul of the suggested working dilution to label $10^6$ cells in 100ul.<br><br>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. Rao, M. *et al.* (1987) Characterization of a monoclonal antibody directed against the murine B lymphocyte receptor for IgE. J Immunol. 138 (6): 1845-51.<br>2. Maeda, K. *et al.* (1992) Murine follicular dendritic cells and low affinity Fc receptors for IgE (Fc epsilon RII). J Immunol. 148 (8): 2340-7.<br>3. Montagnac, G. *et al.* (2005) Intracellular trafficking of CD23: differential regulation in humans and mice by both extracellular and intracellular exons. J Immunol. 174: 5562-72<br>4. Mion, F. *et al.* (2014) Mast cells control the expansion and differentiation of IL-10-competent B cells. J Immunol. 193 (9): 4568-79. |
| **Storage** | Store at +4$^{o}$C or at -20$^{o}$C if preferred.<br>Storage in frost-free freezers is not recommended.<br>This product should be stored undiluted. This product is photosensitive and should be protected from light.<br>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
| **Shelf Life** | 18 months from date of despatch. |
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| **Health And Safety** | Material Safety Datasheet Documentation #10041 available at: |

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| **Information** | https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf |
| **Regulatory** | For research purposes only |


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