

## Datasheet: MCA2330PET

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| <b>Description:</b>  | MOUSE ANTI HUMAN CD312:RPE |
| <b>Specificity:</b>  | CD312                      |
| <b>Other names:</b>  | EMR2                       |
| <b>Format:</b>       | RPE                        |
| <b>Product Type:</b> | Monoclonal Antibody        |
| <b>Clone:</b>        | 2A1                        |
| <b>Isotype:</b>      | IgG1                       |
| <b>Quantity:</b>     | 25 TESTS                   |

## 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 | ■   |    |                | Neat               |

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.

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| <b>Target Species</b>          | Human   |                            |                          |
| <b>Product Form</b>            | Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized                               |                            |                          |
| <b>Reconstitution</b>          | Reconstitute in 0.25 ml distilled water   |                            |                          |
| <b>Max Ex/Em</b>               | <b>Fluorophore</b>  | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                                | RPE 488nm laser   | 496                        | 578                      |
| <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</b>            | 0.09% Sodium Azide  |                            |                          |
| <b>Stabilisers</b>             | 1% Bovine Serum Albumin   |                            |                          |
|                                | 5% Sucrose  |                            |                          |
| <b>Immunogen</b>               | NIH-3T3 cells stably transfected with EMR2 (EGF1-5) cDNA.                                     |                            |                          |
| <b>External Database Links</b> | <b>UniProt:</b><br><a href="#">Q9UHX3</a> <a href="#">Related reagents</a>                    |                            |                          |
|                                | <b>Entrez Gene:</b>   |                            |                          |

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| <b>Fusion Partners</b> | Spleen cells from immunised Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line. |
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| <b>Specificity</b> | <b>Mouse anti Human CD312 antibody, clone 2A1</b> recognizes human EMR2, a member of the epidermal growth factor-seven transmembrane (EGF-TM7) family of proteins, which is closely related to CD97. EMR2, also known as CD312, is predominantly expressed on myeloid dendritic cells, monocytes and tissue macrophages. Various isoforms of EMR2 have been documented. The ligand for the largest isoform of EMR2 has recently been identified as chondroitin sulphate, which binds to the fourth EGF-like module of EMR2. Clone 2A1 specifically recognizes the stalk region of EMR2. |
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| <b>Flow Cytometry</b> | Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul. |
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| <b>References</b> | <ol style="list-style-type: none"><li>1. Kwakkenbos, M.J. <i>et al.</i> (2002) The human EGF-TM7 family member EMR2 is a heterodimeric receptor expressed on myeloid cells. <a href="#">J Leukoc Biol. 71 (5): 854-62.</a></li><li>2. Stacey, M. <i>et al.</i> (2003) The epidermal growth factor-like domains of the human EMR2 receptor mediate cell attachment through chondroitin sulfate glycosaminoglycans. <a href="#">Blood. 102 (8): 2916-24.</a></li><li>3. Yona, S. <i>et al.</i> (2008) Ligation of the adhesion-GPCR EMR2 regulates human neutrophil function. <a href="#">FASEB J. 22 (3): 741-51.</a></li><li>4. Lin, H.H. <i>et al.</i> (2004) Autocatalytic cleavage of the EMR2 receptor occurs at a conserved G protein-coupled receptor proteolytic site motif. <a href="#">J Biol Chem. 279 (30): 31823-32.</a></li><li>5. Huang, Y.S. <i>et al.</i> (2018) Membrane-association of EMR2/ADGRE2-NTF is regulated by site-specific N-glycosylation. <a href="#">Sci Rep. 8 (1): 4532.</a></li></ol> |
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| <b>Further Reading</b> | <ol style="list-style-type: none"><li>1. Kwakkenbos, M.J. <i>et al.</i> (2004) The EGF-TM7 family: a postgenomic view. <a href="#">Immunogenetics. 55 (10): 655-66.</a></li></ol> |
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| <b>Storage</b> | Store at +4°C.<br><br>DO NOT FREEZE<br><br>This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use. |
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| <b>Shelf Life</b> | 12 months from date of reconstitution. |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10075 available at: 10075: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf</a> |
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| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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