

## Datasheet: MCA2330A647T

<b>Description:</b>	MOUSE ANTI HUMAN CD312:Alexa Fluor® 647
<b>Specificity:</b>	CD312
<b>Other names:</b>	EMR2
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2A1
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	25 TESTS/0.25ml

### 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.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor®647- liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A 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		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml		

**Immunogen** NIH-3T3 cells stably transfected with EMR2 (EGF1-5) cDNA.

---

**External Database**

**Links**

**UniProt:**

[Q9UHX3](#) [Related reagents](#)

**Entrez Gene:**

[30817](#) EMR2 [Related reagents](#)

---

**RRID**

AB\_2231142

---

**Fusion Partners**

Spleen cells from immunized Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line.

---

**Specificity**

**Mouse anti Human CD312 antibody, clone 2A1** 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. Mouse anti Human CD312 antibody, clone 2A1 recognizes the stalk region of EMR2.

---

**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

---

**References**

1. Kwakkenbos, M.J. *et al.* (2002) The human EGF-TM7 family member EMR2 is a heterodimeric receptor expressed on myeloid cells. [J Leukoc Biol. 71 \(5\): 854-62.](#)
  2. Stacey, M. *et al.* (2003) The epidermal growth factor-like domains of the human EMR2 receptor mediate cell attachment through chondroitin sulfate glycosaminoglycans. [Blood. 102 \(8\): 2916-24.](#)
  3. Lin, H.H. *et al.* (2004) Autocatalytic cleavage of the EMR2 receptor occurs at a conserved G protein-coupled receptor proteolytic site motif. [J Biol Chem. 279 \(30\): 31823-32.](#)
  4. Yona, S. *et al.* (2008) Ligation of the adhesion-GPCR EMR2 regulates human neutrophil function. [FASEB J. 22 \(3\): 741-51.](#)
  5. Tseng, W.Y. *et al.* (2013) Increased soluble CD4 in serum of rheumatoid arthritis patients is generated by matrix metalloproteinase (MMP)-like proteinases. [PLoS One. 8 \(5\): e63963.](#)
  6. Huang, Y.S. *et al.* (2018) Membrane-association of EMR2/ADGRE2-NTF is regulated by site-specific N-glycosylation. [Sci Rep. 8 \(1\): 4532.](#)
  7. Shankar-Hari, M. *et al.* (2018) Early PREdiction of sepsis using leukocyte surface biomarkers: the ExPRES-sepsis cohort study. [Intensive Care Med. 44 \(11\): 1836-48.](#)
  8. Bhudia, N. *et al.* (2020) G Protein-Coupling of Adhesion GPCRs ADGRE2/EMR2 and ADGRE5/CD97, and Activation of G Protein Signalling by an Anti-EMR2 Antibody. [Sci Rep. 10 \(1\): 1004.](#)
- 

**Further Reading**

1. Kwakkenbos, M.J. *et al.* (2004) The EGF-TM7 family: a postgenomic view. [Immunogenetics. 55 \(10\): 655-66.](#)
-

**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

---

**Guarantee** 12 months from date of despatch

---

**Acknowledgements** This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or [outlicensing@thermofisher.com](mailto:outlicensing@thermofisher.com)

---

**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2330A647T10041>

---

**Regulatory** For research purposes only

---

## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

### Recommended Useful Reagents

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

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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

'M385670:210513'

Printed on 17 Jan 2025

---

© 2025 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)