

Datasheet: MCA2330A647

Description:	MOUSE ANTI HUMAN CD312:Alexa Fluor® 647
Specificity:	CD312
Other names:	EMR2
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	2A1
Isotype:	IgG1
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

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

Human

Product Form

Purified IgG conjugated to Alexa Fluor®647- liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

Preparation

Purified IgG prepared by affinity chromatography on Protein A 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 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_566726

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 10^6 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.](#)
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Further Reading

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

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2330A647>
10041

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 \(BUF070B\)](#)

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