

Datasheet: MCA2330A647T

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

Product Details

Applications	This product has been reported to work in the following applications. This is derived from testing within our laboratories, peer-reviewed publications or p communications from the originators. Please refer to references indicated f						
	information. For general protocol recommendations, please visit <u>www.bio-</u> rad-antibodies.com/protocols.						
		Yes	No	Not Determined	Suggested Dilution		
	Flow Cytometry	-			Neat		
	Where this antibody ha	as not been f	ested 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 sy	stem usin	g appropriate nega	ative/positive controls.		
Target Species	Human						
Product Form	Purified IgG conjugated to Alexa Fluor®647- liquid						
Max Ex/Em	Fluorophore	Excitation M	lax (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	0.09% Sodium Azide						
Stabilisers	1% Bovine Serum	Albumin					
Approx. Protein Concentrations	IgG concentration 0.05	5 mg/ml					

External Database Links	UniProt: <u>Q9UHX3</u> <u>Related reagents</u> Entrez Gene: <u>30817</u> EMR2 <u>Related reagents</u>	
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 chrondroitin 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	 Kwakkenbos, M.J. <i>et al.</i> (2002) The human EGF-TM7 family member EMR2 is a heterodimeric receptor expressed on myeloid cells. J Leukoc Biol. 71 (5): 854-62. 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. Blood. 102 (8): 2916-24. 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. J Biol Chem. 279 (30): 31823-32. Yona, S. <i>et al.</i> (2008) Ligation of the adhesion-GPCR EMR2 regulates human neutrophil function. FASEB J. 22 (3): 741-51. Tseng, W.Y. <i>et al.</i> (2013) Increased soluble CD4 in serum of rheumatoid arthritis patients is generated by matrix metalloproteinase (MMP)-like proteinases. PLoS One. 8 (5): e63963. Huang, Y.S. <i>et al.</i> (2018) Membrane-association of EMR2/ADGRE2-NTF is regulated b site-specific N-glycosylation. Sci Rep. 8 (1): 4532. Shankar-Hari, M. <i>et al.</i> (2018) Early PREdiction of sepsis using leukocyte surface biomarkers: the ExPRES-sepsis cohort study. Intensive Care Med. 44 (11): 1836-48. Bhudia, N. <i>et al.</i> (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. <i>et al.</i> (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, Carlsbac CA 92008 USA or outlicensing@thermofisher.com		
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2330A647T 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)

North & South	Tel: +1 800 265 7376
America	Fax: +1 919 878 3751
	Email: antibody_sales_us@

Worldwide 1 s_us@bio-rad.com Tel: +44 (0)1865 852 700 **Europe** Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: 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 'M385670:210513'

Printed on 23 May 2025

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