Datasheet: MCA2330

BATCH NUMBER 168702

Description:	MOUSE ANTI HUMAN CD312
Specificity:	CD312
Other names:	EMR2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2A1
Isotype:	IgG1
Quantity:	0.2 mg

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	▪			1/50 - 1/200
Immunohistology - Frozen	▪			1/50 - 1/200
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			

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 - liquid
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

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 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_566724
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	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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2330 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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

Europe 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

'M383683:210513'

Printed on 10 Jul 2024