

Datasheet: MCA2293

Description:	escription: RAT ANTI MOUSE CD107	
Specificity:	CD107b	
Other names:	MAC-3	
Format:	Purified	
Product Type:	Monoclonal Antibody	
Clone:	M3/84	
lsotype:	lgG1	
Quantity:	0.25 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)	-			1/50 - 1/100
Immunohistology - Frozen	-			
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. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm[™] (Product Code <u>BUF09</u>) for this purpose.

Target Species	Mouse	
Product Form	Purified IgG - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein G 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	Glycoproteins purified from mouse peritoneal macrophage membranes.
External Database Links	UniProt: <u>P17047</u> <u>Related reagents</u>
	Entrez Gene: <u>16784</u> Lamp2 <u>Related reagents</u>
Synonyms	Lamp-2
Fusion Partners	Spleen cells from immunised Lewis rats were fused with cells of the mouse P3-NSI/1-Ag4-1 myeloma cell line.
Specificity	Rat anti Mouse CD107b antibody, clone M3/84 recognizes murine CD107b, also known as MAC-3 and LAMP-2. CD107b is a transmembrane glycoprotein that is associated with lysosomal membranes and is primarily expressed on mononuclear phagocytes. Expression of CD107b does vary between cell populations and the molecular weight of CD107b can vary between ~92-120 kDa. Studies suggest that CD107b may be involved in leucocyte adhesion.
	The expression of CD107b is predominantly cytoplasmic - flow cytometry results are improved by the use of a membrane permeabilisation procedure prior to staining.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	 Springer, T.A. (1981) Monoclonal antibody analysis of complex biological systems. Combination of cell hybridization and immunoadsorbents in a novel cascade procedure and its application to the macrophage cell surface. J Biol Chem. 256 (8): 3833-9. Flotte, T.J. <i>et al.</i> (1983) Dendritic cell and macrophage staining by monoclonal antibodies in tissue sections and epidermal sheets. Am J Pathol. 111 (1): 112-24. Ho, M.K. & Springer, T.A. (1983) Tissue distribution, structural characterization, and biosynthesis of Mac-3, a macrophage surface glycoprotein exhibiting molecular weight heterogeneity. J Biol Chem. 258 (1): 636-42. Ulrich, R. <i>et al.</i> (2010) Machine learning approach identifies new pathways associated with demyelination in a viral model of multiple sclerosis. J Cell Mol Med. 14 (1-2): 434-48. Amirbekian, V. <i>et al.</i> (2007) Detecting and assessing macrophages in vivo to evaluate atherosclerosis noninvasively using molecular MRI. Proc Natl Acad Sci U S A. 104: 961-6. Fan, D. <i>et al.</i> (2014) Differential role of TIMP2 and TIMP3 in cardiac hypertrophy, fibrosis, and diastolic dysfunction. Cardiovasc Res. 103 (2): 268-80. Higuchi, Y. <i>et al.</i> (2004) Critical role of monocyte chemoattractant protein-1 receptor CCR2 on monocytes in hypertension-induced vascular inflammation and remodeling. Circ Res. 94: 1203-10. Sato, A. <i>et al.</i> (2004) Thioredoxin-1 ameliorates cigarette smoke-induced lung inflammation and emphysema in mice. J Pharmacol Exp Ther. 325: 380-8. Xu, J. <i>et al.</i> (2004) Essential role of vascular endothelial growth factor in angiotensin II-induced vascular inflammation. Am J Physiol Heart Circ Physiol. 293: H1900-7. Zhao, Q. <i>et al.</i> (2004) Essential role of vascular endothelial growth factor in angiotensin li-induced vascular inflammation and remodeling. Hypertension. 44: 264-70. Raddatz, B.B. <i>et al.</i> (2016) Central Nervous System Demyelination and Remyelin

	 Herder, V. <i>et al.</i> (2015) Dynamic Changes of Microglia/Macrophage M1 and M2 Polarization in Theiler's Murine Encephalomyelitis. <u>Brain Pathol. 25 (6): 712-23.</u> Bröer S <i>et al.</i> (2016) Brain inflammation, neurodegeneration and seizure development following picornavirus infection markedly differ among virus and mouse strains and substrains. <u>Exp Neurol. pii: S0014-4886(16)30033-4.</u> Bobbala, D. <i>et al.</i> (2016) Interleukin-21-dependent modulation of T cell antigen receptor reactivity towards low affinity peptide ligands in autoreactive CD8(+) T lymphocytes. <u>Cytokine. 85:</u> <u>83-91.</u> Fayyad, A. <i>et al.</i> (2018) Matrix metalloproteinases expression in spontaneous canine histiocytic sarcomas and its xenograft model. <u>Vet Immunol Immunopathol. 198: 54-64.</u> Ciurkiewicz, M. <i>et al.</i> (2018) Cytotoxic CD8⁺ T cell ablation enhances the capacity of regulatory T cells to delay viral elimination in Theiler's murine encephalomyelitis. <u>Brain Pathol. 28 (3):</u> <u>349-368.</u>
Storage	Store at +4°C or at -20°C if preferred.
	This product should be stored undiluted.
	Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: <u>https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</u>
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16)	DyLight®800		
Goat Anti Rat IgG (STAR73)	RPE		
Rabbit Anti Rat IgG (STAR21)	HRP		
Rabbit Anti Rat IgG (STAR17)	FITC		
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71) DyLight®649, DyLight®800			
Goat Anti Rat IgG (STAR131)	Alk. Phos., Biotin		
Goat Anti Rat IgG (STAR69)	<u>FITC</u>		
Goat Anti Rat IgG (STAR72)	HRP		
Recommended Negative Controls			

RAT IgG1 NEGATIVE CONTROL (MCA1211)

Recommended Useful Reagents

ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025A) ANTIGEN RETRIEVAL BUFFER, pH8.0 (BUF025C)

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