Datasheet: MCA1258G

BATCH NUMBER 171458

Description:	RAT ANTI MOUSE CD45R
Specificity:	CD45R
Other names:	B220, LY-5
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	RA3-6B2
Isotype:	IgG2a
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	▪			1/100 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Immunofluorescence	▪			

Where this product 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 product for use in their own system using appropriate negative/positive controls.

(1)**PLP fixation is recommended for optimal results, see Whiteland *et al.* for details**

Target Species

Mouse

Species Cross Reactivity

Reacts with: Human, Cat

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

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 (NaN_3)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Murine leukemia-induced pre-B tumor cells (RAW112)
External Database Links	**UniProt:** P06800 Related reagents **Entrez Gene:** 19264 Ptprc Related reagents
Synonyms	Ly-5
RRID	AB_323211
Fusion Partners	Spleen cells from immunized Lewis rats were fused with cells of the rat S194/5 XX0.BU-1 myeloma cell line
Specificity	**Rat anti Mouse CD45R antibody, clone RA3-6B2** recognizes murine CD45R, a form of the CD45 antigen expressed by B cells and lytically active subsets of NK cells and non-MHC restricted CTL's. Rat anti Mouse CD45R antibody, clone RA3-6B2 immunoprecipitates the high molecular weight form of CD45 (220 kDa). Rat anti Mouse CD45R antibody, clone RA3-6B2 is suitable for plp fixed paraffin embedded tissues (Whiteland *et al.*1995).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells in 100µl.
References	1. Holmes, K.L. *et al.* (1986) Analysis of neoplasms induced by Cas-Br-M MuLV tumor extracts. J Immunol. 137 (2): 679-88. 2. Spangrude, G.J. *et al.* (1988) Purification and characterization of mouse hematopoietic stem cells. Science. 241: 58-62. 3. Spangrude, G.J. *et al.* (1988) Two rare populations of mouse Thy-1lo bone marrow cells repopulate the thymus. J Exp Med. 167 (5): 1671-83. 4. Whiteland, J.L. *et al.* (1995) Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. J

Histochem Cytochem. 43 (3): 313-20.
5. Hawke, S. *et al.* (1998) Long-term persistence of activated cytotoxic T lymphocytes after viral infection of the central nervous system. J Exp Med. 187: 1575-82.
6. Rosmalen, J.G. *et al.* (2000) Subsets of macrophages and dendritic cells in nonobese diabetic mouse pancreatic inflammatory infiltrates: correlation with the development of diabetes. Lab Invest. 80 (1): 23-30.
7. Stevenson, P.G. *et al.* (2002) Uncoupling of virus-induced inflammation and anti-viral immunity in the brain parenchyma. J Gen Virol. 83: 1735-43.
8. Perry, M.J. *et al.* (2000) Effects of high-dose estrogen on murine hematopoietic bone marrow precede those on osteogenesis. Am J Physiol Endocrinol Metab. 279: E1159-65.
9. Straubinger, R.K. *et al.* (2003) Quantitative evaluation of inflammatory and immune responses in the early stages of chronic Helicobacter pylori infection. Infect Immun. 71: 2693-703.
10. Shulga-Morskaya, S. *et al.* (2004) B cell-activating factor belonging to the TNF family acts through separate receptors to support B cell survival and T cell-independent antibody formation. J Immunol. 173 (4): 2331-41.
11. Gengozian, N. *et al.* (2005) Characterization of a monoclonal antibody identifying a CD45RA antigen on feline leukocytes. Vet Immunol Immunopathol. 108: 253-64.
12. Herrmann, I. *et al.* (2006) Streptococcus pneumoniae Infection aggravates experimental autoimmune encephalomyelitis via Toll-like receptor 2. Infect Immun. 74: 4841-8.
13. Itoh, T. *et al.* (2007) Ddb2 is a haploinsufficient tumor suppressor and controls spontaneous germ cell apoptosis. Hum Mol Genet. 16: 1578-86.
14. McGill, J. *et al.* (2009) Fetal exposure to ethanol has long-term effects on the severity of influenza virus infections. J Immunol. 182: 7803-8
15. Ankeny, D.P. *et al.* (2009) B cells produce pathogenic antibodies and impair recovery after spinal cord injury in mice. J Clin Invest. 119: 2990-9.
16. Lacroix-Lamande, S. *et al.* (2009) Neonate intestinal immune response to CpG oligodeoxynucleotide stimulation. PLoS One. 4: e8291.
17. Lundqvist, J. *et al.* (2010) Concomitant infection decreases the malaria burden but escalates relapsing fever borreliosis. Infect Immun. 78 (5): 1924-30.
18. Giuriato, S. *et al.* (2010) Conditional TPM3-ALK and NPM-ALK transgenic mice develop reversible ALK-positive early B-cell lymphoma/leukemia. Blood. 115: 4061-70.
19. Kleiter, I. *et al.* (2010) Smad7 in T cells drives T helper 1 responses in multiple sclerosis and experimental autoimmune encephalomyelitis. Brain. 133: 1067-81.
20. Nakaya, T. *et al.* (2010) Critical role of Pcid2 in B cell survival through the regulation of MAD2 expression. J Immunol. 185: 5180-7.
21. Soejima, M. *et al.* (2011) Role of innate immunity in a murine model of histidyl-transfer RNA synthetase (Jo-1)-mediated myositis. Arthritis Rheum. 63: 479-87.
22. Bertilaccio, M.T. *et al.* (2011) Lack of TIR8/SIGIRR triggers progression of chronic lymphocytic leukemia in mouse models. Blood. 118: 660-9.
23. Zhou, Z. *et al.* (2011) Autoreactive marginal zone B cells enter the follicles and interact with CD4+ T cells in lupus-prone mice. BMC Immunol. 2011; 12:7.
24. Fanning, S. *et al.* (2012) Bifidobacterial surface-exopolysaccharide facilitates commensal-host interaction through immune modulation and pathogen protection. Proc Natl Acad Sci U S A. 109 (6): 2108-13.
25. Ruf, M.T. *et al.* (2012) Chemotherapy-Associated Changes of Histopathological

Features of Mycobacterium ulcerans Lesions in a Buruli Ulcer Mouse Model. Antimicrob Agents Chemother. 56: 687-96.
26. Carpenter, R.S. *et al.* (2015) Traumatic spinal cord injury in mice with human immune systems. Exp Neurol. 271: 432-44.
27. Lastrucci, C. *et al.* (2015) Molecular and cellular profiles of the resolution phase in a damage-associated molecular pattern (DAMP)-mediated peritonitis model and revelation of leukocyte persistence in peritoneal tissues. FASEB J. 29 (5): 1914-29.
28. Gibson-Corley, K.N. *et al.* (2016) A method for histopathological study of the multifocal nature of spinal cord lesions in murine experimental autoimmune encephalomyelitis. PeerJ. 4: e1600.
29. Thiele Née Schrewe, L. *et al.* (2020) Functional relevance of the multi-drug transporter abcg2 on teriflunomide therapy in an animal model of multiple sclerosis. J Neuroinflammation. 17 (1): 9.
30. Allen, A.C. *et al.* (2021) Parallel *in vivo.* experimental evolution reveals that increased stress resistance was key for the emergence of persistent tuberculosis bacilli. Nat Microbiol. 6 (8): 1082-93.
31. Chanut, F.J.A. *et al.* (2021) Conditioning Regimens in Long-Term Pre-Clinical Studies to Support Development of Ex Vivo Gene Therapy: Review of Nonproliferative and Proliferative Changes. Hum Gene Ther. 32 (1-2): 66-76.
32. Jaensch, S.M. *et al.* (2022) Clinicopathologic and immunophenotypic features in dogs with presumptive large granular lymphocyte leukaemia. Aust Vet J. 100 (11): 527-32.
33. Roca, C.P. *et al.* (2023) A cross entropy test allows quantitative statistical comparison of t-SNE and UMAP representations Cell Reports Methods. 3 (1): 100390.
34. Kohlmeyer, J.L. *et al.* (2023) CDK4/6-MEK Inhibition in MPNSTs Causes Plasma Cell Infiltration, Sensitization to PD-L1 Blockade, and Tumor Regression. Clin Cancer Res. 29 (17): 3484-97.

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/MCA1258G
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC
Rabbit Anti Rat IgG (STAR21...)	HRP

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550, DyLight®650, DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos., Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL (MCA1212)

Product inquiries: www.bio-rad-antibodies.com/technical-support

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

'M436892:250303'

Printed on 02 Oct 2025