

Datasheet: MCA1029GA

Description:	MOUSE ANTI RAT OX-62
Specificity:	OX-62
Other names:	CD103
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	OX-62
Isotype:	IgG1
Quantity:	0.1 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 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			

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.

Target Species	Rat
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 (NaN ₃)
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Density gradient enriched PVG rat thoracic duct dendritic cells.
External Database Links	UniProt: O88341 Related reagents
RRID	AB_2128734.
Fusion Partners	Spleen cells of BALB/c mice were fused with cells of the mouse NS0 myeloma cell line.
Specificity	Mouse anti Rat OX-62 antibody, clone OX-62 recognizes the OX-62 antigen, also known as rat alpha E integrin or CD103. OX-62 appears as an 1150 amino acid, ~130 kDa single pass type I transmembrane protein expressed by intestinal dendritic cells, dendritic epidermal T cells, intraepithelial lymphocytes in the small intestine and by cells of dendritic morphology in lymphoid organs, at sites where gamma delta T cells are present.
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> Brenan, M. & Puklavec, M. (1992) The MRC OX-62 antigen: a useful marker in the purification of rat veiled cells with the biochemical properties of an integrin. J Exp Med. 175 (6): 1457-65. Brenan, M. & Rees, D.J. (1997) Sequence analysis of rat integrin alpha E1 and alpha E2 subunits: tissue expression reveals phenotypic similarities between intraepithelial lymphocytes and dendritic cells in lymph. Eur J Immunol. 27 (11): 3070-9. Kostulas, N. <i>et al.</i> (2002) Dendritic cells are present in ischemic brain after permanent middle cerebral artery occlusion in the rat. Stroke. 33 (4): 1129-34. Rival, C. <i>et al.</i> (2006) Identification of a dendritic cell population in normal testis and in chronically inflamed testis of rats with autoimmune orchitis. Cell Tissue Res. 324 (2): 311-8. Tsuchiya, T. <i>et al.</i> (2002) Dendritic cell involvement in pulmonary granuloma formation elicited by bacillus calmette-guérin in rats. Am J Respir Crit Care Med. 165 (12): 1640-6. Zilka, N. <i>et al.</i> (2009) Human misfolded truncated tau protein promotes activation of microglia and leukocyte infiltration in the transgenic rat model of tauopathy. J Neuroimmunol. 209 (1-2): 16-25. Schwartzkopff, J. <i>et al.</i> (2010) NK cell depletion delays corneal allograft rejection in baby rats. Mol Vis. 16: 1928-35. Baca Jones, C.C. <i>et al.</i> (2009) Rat cytomegalovirus infection depletes MHC II in bone marrow derived dendritic cells. Virology. 388: 78-90. Zhou, Y.J. <i>et al.</i> (2010) The role of the lactadherin in promoting intestinal DCs development <i>in vivo</i> and <i>in vitro</i>. Clin Dev Immunol. 2010: 357541. Aiello, S. <i>et al.</i> (2000) Thymic Dendritic Cells Express Inducible Nitric Oxide Synthase and Generate Nitric Oxide in Response to Self- and Alloantigens J Immunol. 164: 4649-58. Camelo, S. <i>et al.</i> (2003) Local retention of soluble antigen by potential antigen-presenting cells in the anterior segment of the eye. Invest Ophthalmol Vis Sci. 44: 5212-9.

12. Camelo, S. *et al.* (2004) The distribution of antigen in lymphoid tissues following its injection into the anterior chamber of the rat eye. [J Immunol. 172: 5388-95.](#)
13. Henry, F. *et al.* (1999) Antigen-presenting cells that phagocytose apoptotic tumor-derived cells are potent tumor vaccines. [Cancer Res. 59: 3329-32.](#)
14. Liu, L. *et al.* (1998) Dendritic cell heterogeneity *in vivo*: two functionally different dendritic cell populations in rat intestinal lymph can be distinguished by CD4 expression. [J Immunol. 161: 1146-55.](#)
15. O'Sullivan, N.L. *et al.* (2001) Lymphocyte lineages at mucosal effector sites: rat salivary glands. [J Immunol. 166: 5522-9.](#)
16. Penttila, I.A. *et al.* (2003) Maternal milk regulation of cell infiltration and interleukin 18 in the intestine of suckling rat pups. [Gut. 52: 1579-86.](#)
17. Stephens, L.A. *et al.* (2004) Phenotypic characterization of regulatory CD4+CD25+ T cells in rats. [Int Immunol. 16: 365-75.](#)
18. Sugawara, I. *et al.* (2004) Pathological and immunological profiles of rat tuberculosis. [Int J Exp Pathol. 85: 125-34.](#)
19. Tiurbe, G. *et al.* (2009) Inhibitory effects of rat bone marrow-derived dendritic cells on naïve and alloantigen-specific CD4+ T cells: a comparison between dendritic cells generated with GM-CSF plus IL-4 and dendritic cells generated with GM-CSF plus IL-10. [BMC Res Notes. 2: 12.](#)
20. Chen-Woan, M. *et al.* (1995) A new protocol for the propagation of dendritic cells from rat bone marrow using recombinant GM-CSF, and their quantification using the mAb OX-62. [J Immunol Methods. 178 \(2\): 157-71.](#)
21. Stojić-Vukanić, Z. *et al.* (2016) Estradiol enhances capacity of TLR-matured splenic dendritic cells to polarize CD4+ lymphocytes into IL-17/GM-CSF-producing cells *in vitro*. [Int Immunopharmacol. 40: 244-253.](#)
22. Varas, A. *et al.* (1998) Interleukin-7 influences the development of thymic dendritic cells. [Blood. 92: 93-100.](#)
23. Bufan, B. *et al.* (2015) Aging Impairs Endocytic Capacity Of Splenic Dendritic Cells From Dark Agouti Rats And Alters Their Response To TLR4 Stimulation [Acta Veterinaria. Volume 65, Issue 1, Pages 30–55.](#)
24. Syrjälä, S. *et al.* (2015) Donor Heart Treatment With COMP-Ang1 Limits Ischemia-Reperfusion Injury and Rejection of Cardiac Allografts. [Am J Transplant. 15 \(8\): 2075-84.](#)
25. Palin, N.K. *et al.* (2017) Activin inhibition limits early innate immune response in rat kidney allografts-a pilot study. [Transpl Int. 30 \(1\): 96-107.](#)
26. Raissadati, A. *et al.* (2017) Vascular Endothelial Growth Factor-B Overexpressing Hearts Are Not Protected From Transplant-Associated Ischemia-Reperfusion Injury. [Exp Clin Transplant. 15 \(2\): 203-12.](#)
27. Stojić-Vukanić, Z. *et al.* (2019) Age and sex determine CD4+ T cell stimulatory and polarizing capacity of rat splenic dendritic cells. [Biogerontology. Oct 23 \[Epub ahead of print\].](#)
28. Lauzon-Joset, J.F. *et al.* (2020) Oestrogen amplifies pre-existing atopy-associated Th2 bias in an experimental asthma model. [Clin Exp Allergy. 50 \(3\): 391-400.](#)
29. Pilipović, I. *et al.* (2019) Noradrenaline modulates CD4+ T cell priming in rat experimental autoimmune encephalomyelitis: a role for the α_1 -adrenoceptor. [Immunol Res. 67 \(2-3\): 223-40.](#)
30. Yu, J. *et al.* (2022) Topical Administration of 0.3% Tofacitinib Suppresses M1 Macrophage Polarization and Allograft Corneal Rejection by Blocking STAT1 Activation in

the Rat Cornea [Transl Vis Sci Technol. 11 \(3\): 34](#)

31. Cakala-Jakimowicz, M. & Puzianowska-Kuznicka, M. (2022) Towards Understanding the Lymph Node Response to Skin Infection with Saprophytic *Staphylococcus epidermidis*. [Biomedicines. 10 \(5\): 1021.](#)

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/MCA1029GA>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
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 (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

North & South Tel: +1 800 265 7376

America 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](https://www.bio-rad-antibodies.com/datasheets)

'M407819:221009'

Printed on 25 Mar 2023