

Datasheet: MCA02PE

Description:	MOUSE ANTI MOUSE CD90:RPE		
Specificity:	CD90		
Other names:	THY1		
Format:	RPE		
Product Type:	Monoclonal Antibody		
Clone:	F7D5		
lsotype:	lgM		
Quantity:	100 TESTS		

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 <u>www.bio-rad-antibodies.com/protocols</u> .						
		Yes	No	Not Determined	Suggested Dilution		
	Flow Cytometry	•			Neat		
	Where this product ha	is not been te	ested for u	ise in a particular teo	chnique 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.						
Target Species	Mouse						
Product Form	IgM fraction conjugated to R. Phycoerythrin (RPE) - lyophilized						
Reconstitution	Reconstitute with 1.0 ml distilled water Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.						
Max Ex/Em	Fluorophore	Excitation M	lax (nm)	Emission Max (nm)			
	RPE 488nm laser	496		578	-		
Preparation	IgM fraction prepared by ammonium sulfate precipitation						
Buffer Solution	Phosphate buffered saline						
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin						

	5% Sucrose
External Database Links	UniProt: <u>P01831</u> <u>Related reagents</u> Entrez Gene: <u>21838</u> Thy1 <u>Related reagents</u>
Synonyms	Thy-1
Fusion Partners	Spleen cells from immunised AKR mice were fused with cells of the mouse NS-1 myeloma cell line.
Specificity	Mouse anti Mouse CD90 antibody, clone F7D5 recognizes the mouse Thy1.2 alloantigen, also known as CD90.2, which is expressed by thymocytes and peripheral T lymphocytes. Clone F7D5 reacts with Thy1.2 mice such as CBA and BALB/C, but not with Thy1.1 mice eg. AKR and FUB.
	The antibody is particularly useful for removal of T lymphocytes from cell populations by complement mediated cytotoxicity (<u>Lake <i>et al.</i></u> 1979).
	Mouse anti Mouse CD90 antibody, clone F7D5 is routinely tested in flow cytometry using mouse thymocytes.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^{6} cells in 100ul
References	 Lake, P. <i>et al.</i> (1979) Production and characterization of cytotoxic Thy-1 antibody- secreting hybrid cell lines. Detection of T cell subsets. <u>Eur J Immunol. 9 (11): 875-86.</u> Yoshida, K. <i>et al.</i> (2002) Evidence for shared recognition of a peptide ligand by a diverse panel of non-obese diabetic mice-derived, islet-specific, diabetogenic T cell clones. <u>Int Immunol. 14 (12): 1439-47.</u> DeVries-vanDerZwan, A. <i>et al.</i> (1997) Specific tolerance induction and transplantation: a single-day protocol. <u>Blood. 89 (7): 2596-601.</u> Winzeler, A.M. <i>et al.</i> (2011) The lipid sulfatide is a novel myelin-associated inhibitor of CNS axon outgrowth. <u>J Neurosci. 31: 6481-92.</u> Unterlauft, J.D. <i>et al.</i> (2014) Enhanced survival of retinal ganglion cells is mediated by Müller glial cell-derived PEDF. <u>Exp Eye Res. 127: 206-14.</u> Brown, R.L. <i>et al.</i> (2015) TRPM3 Expression in Mouse Retina. <u>PLoS One. 10:</u> <u>e0117615.</u> Hanafusa, T. <i>et al.</i> (1988) Induction of insulitis by adoptive transfer with L3T4+Lyt2- T-lymphocytes in T-lymphocyte-depleted NOD mice. <u>Diabetes. 37: 204-8.</u> Billiau, A.D. <i>et al.</i> (2003) Transient expansion of Mac1+Ly6-G+Ly6-C+ early myeloid cells with suppressor activity in spleens of murine radiation marrow chimeras: possible implications for the graft-versus-host and graft-versus-leukemia reactivity of donor lymphocyte infusions. <u>Blood. 102: 740-8.</u> Raeber, A.J. <i>et al.</i> (1999) PrP-dependent association of prions with splenic but not circulating lymphocytes of scrapie-infected mice. <u>EMBO J. 18: 2702-6.</u>

10. Wang, X. *et al.* (2001) Functional soluble CD100/Sema4D released from activated lymphocytes: possible role in normal and pathologic immune responses. <u>Blood. 97 (11):</u> <u>3498-504.</u>

11. Billiau, A.D. *et al.* (2002) Crucial role of timing of donor lymphocyte infusion in generating dissociated graft-versus-host and graft-versus-leukemia responses in mice receiving allogeneic bone marrow transplants. <u>Blood. 100 (5): 1894-902.</u>

12. Ishikawa, N. *et al.* (1998) Early cytokine responses during intestinal parasitic infections. <u>Immunology. 93 (2): 257-63.</u>

13. Ishigaki, H. *et al.* (2006) Preparation and functional analysis of tumor-infiltrating stroma cells using bone marrow chimera mice. <u>Microbiol Immunol. 50 (8): 655-62.</u>

14. Logan, G.J. *et al.* (2004) CD4 expression on EL4 cells as an epiphenomenon of retroviral transduction and selection. <u>Immunol Cell Biol. 82 (2): 132-5.</u>

15. Gobin, V. *et al.* (2013) Fluoxetine reduces murine graft-versus-host disease by induction of T cell immunosuppression. <u>J Neuroimmune Pharmacol. 8 (4): 934-43.</u>

van Pel, M. *et al.* (2003) Towards a myeloablative regimen with clinical potential: I.
 Treosulfan conditioning and bone marrow transplantation allow induction of donor-specific tolerance for skin grafts across full MHC barriers. <u>Bone Marrow Transplant. 32 (1): 15-22.</u>
 Oosterwegel, M.A. *et al.* (1999) The role of CTLA-4 in regulating Th2 differentiation. <u>J</u>
 Immunol. 163 (5): 2634-9.

18. Vadivelu, S. *et al.* (2015) NG2+ Progenitors Derived From Embryonic Stem Cells Penetrate Glial Scar and Promote Axonal Outgrowth Into White Matter After Spinal Cord Injury. <u>Stem Cells Transl Med. pii: sctm.2014-0107.</u>

19. Wang, Y.L. *et al.* (2015) Electrospun and woven silk fibroin/poly(lactic-co-glycolic acid) nerve guidance conduits for repairing peripheral nerve injury. <u>Neural Regen Res. 10 (10):</u> 1635-42.

20. Liu, X. *et al.* (2017) Thy-1 interaction with Fas in lipid rafts regulates fibroblast apoptosis and lung injury resolution. <u>Lab Invest. (3): 256-67.</u>

21. Naaldijk, Y. *et al.* (2016) Effect of systemic transplantation of bone marrow-derived mesenchymal stem cells on neuropathology markers in APP/PS1 Alzheimer mice. Neuropathol Appl Neurobiol. Feb 26. [Epub ahead of print]

22. Bernard-Marissal, N. *et al.* (2015) Dysfunction in endoplasmic reticulum-mitochondria crosstalk underlies SIGMAR1 loss of function mediated motor neuron degeneration. <u>Brain.</u> <u>138 (Pt 4): 875-90.</u>

23. Takahama, S. *et al.* (2017) Retinal Astrocytes and GABAergic Wide-Field Amacrine Cells Express PDGFRα: Connection to Retinal Ganglion Cell Neuroprotection by PDGF-AA. <u>Invest Ophthalmol Vis Sci. 58 (11): 4703-11.</u>

24. Zhu, B. *et al.* (2019) GAIN domain-mediated cleavage is required for activation of G protein-coupled receptor 56 (GPR56) by its natural ligands and a small-molecule agonist. J Biol Chem. pii: jbc.RA119.008234. Oct 18 [Epub ahead of print].

25. Bürger, S. *et al.* (2020) Pigment Epithelium-Derived Factor (PEDF) Receptors Are Involved in Survival of Retinal Neurons. Int J Mol Sci. 22 (1): 369.

26. Qiu, A.W. *et al.* (2021) IL-17A injury to retinal ganglion cells is mediated by retinal Müller cells in diabetic retinopathy. <u>Cell Death Dis. 12 (11): 1057.</u>

27. Xing, J. *et al.* (2021) Post-injury born oligodendrocytes integrate into the glial scar and inhibit growth of regenerating axons by premature myelination <u>boRxiv. Oct 20 [Epub</u> <u>ahead of print].</u>

Storage	Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.			
	DO NOT FREEZE.			
	This product should be stored undiluted. This product is photosensitive and should be protected from light.			
Guarantee	12 months from date of despatch			
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: 20487: <u>https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf</u>			
Regulatory	For research purposes only			
Health And Safety Information	This product should be stored undiluted. This product is photosensitive and should be protected from light. 12 months from date of despatch Material Safety Datasheet documentation #20487 available at: 20487: https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf			

Related Products

Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A) MOUSE SEROBLOCK FcR (BUF041B)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-ra	ad.com	Email: antibody_sales_uk@bio-ra	id.com	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 'M375239:210104'

Printed on 21 Mar 2022

© 2022 Bio-Rad Laboratories Inc | Legal | Imprint