

Datasheet: MCA02PB

Description:	MOUSE ANTI MOUSE CD90:Pacific Blue®
Specificity:	CD90
Other names:	THY1
Format:	Pacific Blue®
Product Type:	Monoclonal Antibody
Clone:	F7D5
Isotype:	IgM
Quantity:	100 TESTS/1ml

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	■			Neat

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.

Target Species	Mouse		
Product Form	IgM fraction conjugated to Pacific Blue - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Pacific Blue®	410	455
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		
Approx. Protein Concentrations	IgM concentration 0.05 mg/ml		

UniProt:

[P01831](#) [Related reagents](#)

Entrez Gene:

[21838](#) Thy1 [Related reagents](#)

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 ([Lake et al.](#) 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

1. Lake, P. *et al.* (1979) Production and characterization of cytotoxic Thy-1 antibody-secreting hybrid cell lines. Detection of T cell subsets. [Eur J Immunol. 9 \(11\): 875-86.](#)
2. Yoshida, K. *et al.* (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. [Int Immunol. 14 \(12\): 1439-47.](#)
3. DeVries-vanDerZwan, A. *et al.* (1997) Specific tolerance induction and transplantation: a single-day protocol. [Blood. 89 \(7\): 2596-601.](#)
4. Winzeler, A.M. *et al.* (2011) The lipid sulfatide is a novel myelin-associated inhibitor of CNS axon outgrowth. [J Neurosci. 31: 6481-92.](#)
5. Unterlauff, J.D. *et al.* (2014) Enhanced survival of retinal ganglion cells is mediated by Müller glial cell-derived PEDF. [Exp Eye Res. 127: 206-14.](#)
6. Brown, R.L. *et al.* (2015) TRPM3 Expression in Mouse Retina. [PLoS One. 10: e0117615.](#)
7. Hanafusa, T. *et al.* (1988) Induction of insulinitis by adoptive transfer with L3T4+Lyt2-T-lymphocytes in T-lymphocyte-depleted NOD mice. [Diabetes. 37: 204-8.](#)
8. Billiau, A.D. *et al.* (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. [Blood. 102: 740-8.](#)
9. Raeber, A.J. *et al.* (1999) PrP-dependent association of prions with splenic but not circulating lymphocytes of scrapie-infected mice. [EMBO J. 18: 2702-6.](#)
10. Wang, X. *et al.* (2001) Functional soluble CD100/Sema4D released from activated lymphocytes: possible role in normal and pathologic immune responses. [Blood. 97 \(11\):](#)

[3498-504.](#)

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. [Blood. 100 \(5\): 1894-902.](#)
12. Ishikawa, N. *et al.* (1998) Early cytokine responses during intestinal parasitic infections. [Immunology. 93 \(2\): 257-63.](#)
13. Ishigaki, H. *et al.* (2006) Preparation and functional analysis of tumor-infiltrating stroma cells using bone marrow chimera mice. [Microbiol Immunol. 50 \(8\): 655-62.](#)
14. Logan, G.J. *et al.* (2004) CD4 expression on EL4 cells as an epiphenomenon of retroviral transduction and selection. [Immunol Cell Biol. 82 \(2\): 132-5.](#)
15. Gobin, V. *et al.* (2013) Fluoxetine reduces murine graft-versus-host disease by induction of T cell immunosuppression. [J Neuroimmune Pharmacol. 8 \(4\): 934-43.](#)
16. 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. [Bone Marrow Transplant. 32 \(1\): 15-22.](#)
17. Oosterwegel, M.A. *et al.* (1999) The role of CTLA-4 in regulating Th2 differentiation. [J 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. [Stem Cells Transl Med. pii: sctm.2014-0107.](#)
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. [Neural Regen Res. 10 \(10\): 1635-42.](#)
20. Liu, X. *et al.* (2017) Thy-1 interaction with Fas in lipid rafts regulates fibroblast apoptosis and lung injury resolution. [Lab Invest. \(3\): 256-67.](#)
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. [Brain. 138 \(Pt 4\): 875-90.](#)
23. Takahama, S. *et al.* (2017) Retinal Astrocytes and GABAergic Wide-Field Amacrine Cells Express PDGFR α : Connection to Retinal Ganglion Cell Neuroprotection by PDGF-AA. [Invest Ophthalmol Vis Sci. 58 \(11\): 4703-11.](#)
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. [Cell Death Dis. 12 \(11\): 1057.](#)
27. Xing, J. *et al.* (2021) Post-injury born oligodendrocytes integrate into the glial scar and inhibit growth of regenerating axons by premature myelination [bioRxiv. Oct 20 \[Epub ahead of print\].](#)

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. This product is photosensitive and should be protected from light.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M384752:210513'

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