

Datasheet: MCA47PET

Description:	MOUSE ANTI RAT CD90:RPE
Specificity:	CD90
Other names:	THY1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	OX-7
Isotype:	IgG1
Quantity:	25 TESTS/0.25ml

Product Details

RRID AB_1102452

Applications	<p>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.</p> <table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> <th>Not Determined</th> <th>Suggested Dilution</th> </tr> </thead> <tbody> <tr> <td>Flow Cytometry</td> <td>▪</td> <td></td> <td></td> <td>Neat</td> </tr> </tbody> </table> <p>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.</p>					Yes	No	Not Determined	Suggested Dilution	Flow Cytometry	▪			Neat
	Yes	No	Not Determined	Suggested Dilution										
Flow Cytometry	▪			Neat										
Target Species	Rat													
Species Cross Reactivity	Reacts with: Rabbit, Mouse, Guinea Pig N.B. Antibody reactivity and working conditions may vary between species.													
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized													
Reconstitution	Reconstitute with 0.25 ml distilled water													
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>RPE 488nm laser</td> <td>496</td> <td>578</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	RPE 488nm laser	496	578							
Fluorophore	Excitation Max (nm)	Emission Max (nm)												
RPE 488nm laser	496	578												
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 1% Bovine Serum Albumin 5% Sucrose													

Immunogen	Rat Thy1 antigen.
External Database Links	<p>UniProt: P01830 Related reagents</p> <p>Entrez Gene: 24832 Thy1 Related reagents</p>
Synonyms	Thy-1
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	<p>Mouse anti Rat CD90 antibody, clone OX-7 recognizes rat and CD90, also known as Thy1.1, a GPI-anchored membrane protein containing a single V type Ig-like domain CD90 is expressed on a variety of cell types including thymocytes, neuronal cells, stem cells, immature B cells and connective tissues, CD90 is also expressed in T cells in mice.</p> <p>Since Thy1.1 is a monomorphic determinant in rat but polymorphic in mice, clone MRC OX-7 reacts with Thy1.1 mice e.g. AKR and FVB, but not Thy1.2 mice such as CBA and BALB/c. The affinity of the Fab' of MRC OX-7 for rat Thy1 is $3 \times 10^9 \text{m}^{-1}$ and for mouse Thy1.1 is $3 \times 10^8 \text{m}^{-1}(1)$.</p> <p>Mouse anti rat CD90, clone MRC OX-7 has been demonstrated to promote neurite outgrowths on peripherin-stained sympathetic rat neurons, using fluorescence microscopy (Jeng <i>et al.</i> 1998). Clone OX-7 has also been reported to induce glomerular nephritis in Wistar rats (Tamura <i>et al.</i> 1996).</p> <p>This product is routinely tested in flow cytometry on rat thymocytes.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul
References	<ol style="list-style-type: none"> Mason, D.W. & Williams, A.F. (1980) The kinetics of antibody binding to membrane antigens in solution and at the cell surface. Biochem J. 187 (1): 1-20. Campbell, D.G. <i>et al.</i> (1981) Rat brain Thy-1 glycoprotein. The amino acid sequence, disulphide bonds and an unusual hydrophobic region. Biochem J. 195 (1): 15-30. Bukovský, A. <i>et al.</i> (1983) The localization of Thy-1.1, MRC OX 2 and Ia antigens in the rat ovary and fallopian tube. Immunology. 48 (3): 587-96. Lee, W.S. <i>et al.</i> (1998) Thy-1, a novel marker for angiogenesis upregulated by inflammatory cytokines. Circ Res. 82 (8): 845-51. Jeng, C.J. <i>et al.</i> (1998) Thy-1 is a component common to multiple populations of synaptic vesicles. J Cell Biol. 140 (3): 685-98. Banerjee, S.A. <i>et al.</i> (1997) An antibody to the tetraspan membrane protein CD9 promotes neurite formation in a partially alpha3beta1 integrin-dependent manner. J Neurosci. 17 (8): 2756-65. Kawachi, H. <i>et al.</i> (1992) Epitope-specific induction of mesangial lesions with proteinuria by a MoAb against mesangial cell surface antigen. Clin Exp Immunol. 88 (3): 399-404. Tamura, M. <i>et al.</i> (1996) Enhanced glomerular profilin gene and protein expression in experimental mesangial proliferative glomerulonephritis. Biochem Biophys Res Commun. 222 (3): 683-7. Stevenson, K.S. <i>et al.</i> (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. Stem Cells Dev. 18 (10): 1389-98. Biermann, J. <i>et al.</i> (2011) Histone deacetylase inhibitors sodium butyrate and valproic acid delay spontaneous cell death in purified rat retinal ganglion cells. Mol Vis. 17: 395-403.

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Storage	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	6 months from date of reconstitution
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA1209PE\)](#)

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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