

Datasheet: MCA47PE

Description:	MOUSE ANTI RAT CD90:RPE
Specificity:	CD90
Other names:	THY1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	OX-7
Isotype:	IgG1
Quantity:	100 TESTS

Product Details

RRID AB_321893

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 - 1/10

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

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 1.0 ml distilled water

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

Preparation Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide
Stabilisers 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. 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. 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 \(MCA1209PE\)](#)

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