

## Monoclonal Antibody to CD90 - Purified

<b>Alternate names:</b>	CDw90, THY1, Thy-1, Thy-1 membrane glycoprotein
<b>Catalog No.:</b>	SM049PS
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	Thy1.1 is expressed on a variety of cell types including thymocytes, neuronal cells, stem cells, T lymphocytes (mouse), immature B cells (rat) and connective tissues.
<b>Uniprot ID:</b>	<a href="#">P01831</a>
<b>NCBI:</b>	<a href="#">NP_033408.1</a>
<b>GeneID:</b>	<a href="#">21838</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Clone:</b>	OX-7
<b>Immunogen:</b>	Rat Thy1 antigen. <b>Remarks:</b> Spleen cells from immunised BALB/c mice were fused with cells of the NS1 mouse myeloma cell line.
<b>Format:</b>	<b>State:</b> Liquid purified IgG fraction. <b>Purification:</b> Affinity Chromatography on Protein G. <b>Buffer System:</b> PBS, pH 7.2 containing 0.09% Sodium Azide as preservative.
<b>Applications:</b>	<b>Western Blot.</b> <b>Immunoprecipitation.</b> <b>Immunohistochemistry on Frozen Sections.</b> <b>Flow Cytometry:</b> Use 10 µl of 1/50-1/100 diluted antibody to label 10e6 cells in 100 µl (Rat thymocytes). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody recognises CD90, also known as Thy1.1. 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 mice, but not Thy1.2 mice such as CBA and BALB/c. Clone MRC OX-7 has been demonstrated to promote neurite outgrowths on peripherin-stained sympathetic neurons, using fluorescence microscopy. This clone has been reported to induce glomerular nephritis in Wistar rats (8). <b>Aff. Const.</b> of the Fab' of MRC OX-7 for: Rat: 3 x 10 <sup>9</sup> m <sup>-1</sup> Mouse: 3 x 10 <sup>8</sup> m <sup>-1</sup> <b>Species:</b> Rat. Cross reacts with Mouse, Rabbit and Guinea Pig. Other species not tested.

**For research and in vitro use only. Not for diagnostic or therapeutic work.**

Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.

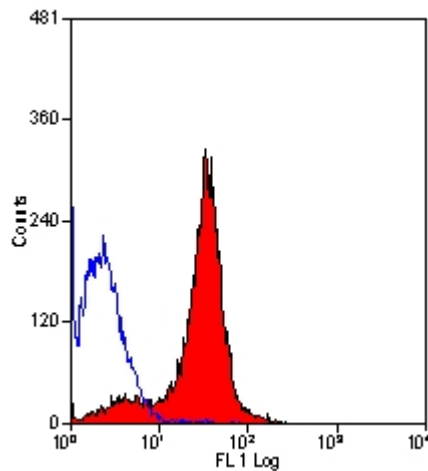
Antibody Hotline - Technical Questions - Antibody Location Service  
Free Call: 0800-2274746 (Germany only) - [www.acris-antibodies.com](http://www.acris-antibodies.com)

**Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.

**General References:**

1. Mason, D.W. and Williams, A.F. (1980) The Kinetics of antibody binding to membrane antigens in solution and at the cell surface. *Biochem.J.* 187: 1-20
2. Campbell, D.G. et al. (1981) Rat brain Thy-1 glycoprotein. *Biochem. J.* 195: 15-30
3. Bukovsky, A. et al. (1983) The localization of Thy-1.1, MRC OX 2 and Ia antigens in the rat ovary and fallopian tube. *Immunology.* 48:587-595
4. Lee, W. et al. (1998) Thy-1, a novel marker for angiogenesis up regulated by inflammatory cytokines. *Circ. Res.* 82: 845 - 851.
5. Jeng, C. J. et al. (1998) Thy-1 is a component common to multiple populations of synaptic vesicles. *J. Cell. Biol.* 140(3):685-98.
6. Banerjee, S.A. et al. (1997) An antibody to the tetraspan membrane protein CD9 promotes neurite formation in a partially alpha3beta1 integrin-dependent manner. *J. Neurosci.* 17: 2756-2765.
7. Kawachi, H. et al. (1992) Epitope-specific induction of mesangial lesions with proteinuria by a MoAb against mesangial cell surface antigen. *Clin. Exp. Immunol.* 88: 399-404.
8. Tamura, M. et al. (1996) Enhanced Glomerular Profilin Gene and Protein Expression in Experimental Mesangial Proliferative Glomerulonephritis. *Biochem Biophys Res Comm.*
9. Stevenson, K.S. et al. (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. *Stem Cells Dev.* 18:1389-98.
10. Biermann, J. et al. (2011) Histone deacetylase inhibitors sodium butyrate and valproic acid delay spontaneous cell death in purified rat retinal ganglion cells. *Mol Vis.* 17: 395-403.

**Pictures:**



Flow Cytometry: SM049P CD90 Antibody Staining of Rat thymocytes.

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