

Monoclonal Antibody to CD90 - Low Endotoxin

Alternate names:	CDw90, THY1, Thy-1, Thy-1 membrane glycoprotein
Catalog No.:	SM049LE
Quantity:	0.5 mg
Concentration:	1.0 mg/ml
Background:	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.
Uniprot ID:	P01831
NCBI:	NP_033408.1
GeneID:	21838
Host / Isotype:	Mouse / IgG1
Clone:	OX-7
Immunogen:	Rat Thy1 antigen. Remarks: Spleen cells from an immunised BALB/c mice were fused with cells of the NS1 mouse myeloma cell line.
Format:	State: Liquid purified IgG fraction Purification: Affinity Chromatography on Protein G Buffer System: PBS, pH 7.2 without preservatives
Applications:	Western Blot. Immunoprecipitation. Immunohistochemistry on Frozen Sections. Flow Cytometry: Use 10 µl of 1/40-1/80 diluted antibody to label 10e6 cells in 100 µl (Routinely tested on Rat thymocytes). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognizes Rat and Mouse 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. Species: Rat, Mouse, Rabbit, Guinea Pig. Other species not tested. Affinity Constant: The affinity of the Fab' of MRC OX-7 for Rat Thy1 is 3 x 10 ⁹ m ⁻¹ and for Mouse Thy1.1 is 3 x 10 ⁸ m ⁻¹ (1)

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

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

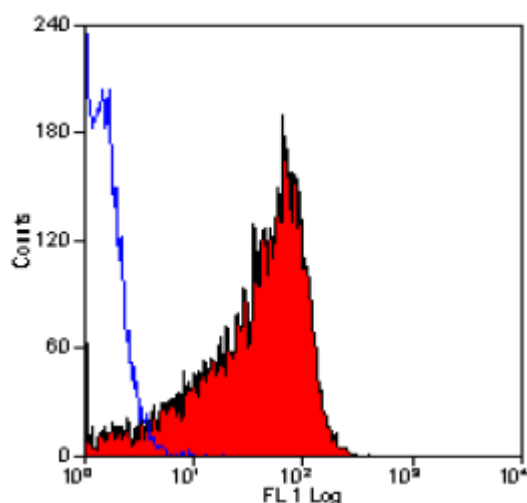
Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

Add. Information: **Endotoxin Level:** Less than 0.01 EU/ μ g

Storage: Store the antibody undiluted at -20°C.
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 α 3 β 1 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.
 11. Keller, R.K. et al. (2004) Formation of 7-dehydrocholesterol-containing membrane rafts in vitro and in vivo, with relevance to the Smith-Lemli-Opitz syndrome. *J Lipid Res.* 45: 347-55.
 12. Ohashi, N. et al. (2010) Glomerular angiotensinogen is induced in mesangial cells in diabetic rats via reactive oxygen species--ERK/JNK pathways. *Hypertens Res.* 33:1174-81.

Pictures:



Staining of Rat thymus with Mouse anti Rat CD90 (THY 1.1): Low Endotoxin (SM049LE)

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