



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Mouse Ant Rat CD90

With HRP-conjugated Secondary Antibody

Catalog No. DS-MB-00941	Target Species Rat	Isotype IgG1
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Preparation

Purification: Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Immunogen: Rat Thy 1 antigen

Fusion Partners: Spleen cells from immunized BALB/c mice were fused with cells of the NS1 mouse myeloma cell line.

Formulation

Product Type: Monoclonal Antibody

Product Form: Purified IgG - liquid

Buffer Solution: Phosphate buffered saline

Preservative Stabilizers: 0.09% Sodium Azide

Approx. Protein Concentration: IgG concentration 1.0 mg/ml

Specificity

DS-MB-00941 recognizes rat and mouse CD90, also known as Thy1.1, expressed on a variety of cell types including thymocytes, neuronal cells, stem cells, T lymphocytes (mouse), immature B cells (rat) and connective tissues.

Since Thy1.1 is a monomorphic determinant in rat but polymorphic in mice, DS-MB-00941 reacts with Thy1.1 mice e.g. AKR and FVB mice, but not Thy1.2 mice such as CBA and BALB/c. The affinity of the Fab' 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).

This antibody has been demonstrated to promote neurite outgrowths on peripherin-stained sympathetic rat neurons, using fluorescence microscopy (5).

This clone has been reported to induce glomerular nephritis in Wistar rats (8). This product is routinely tested in flow cytometry on rat thymocytes.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blot	•			
Flow Cytometry (1)	•			1/50 - 1/100
IHC - Frozen	•			
Immunoprecipitation	•			

Other applications are not tested yet. Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures.

(1) Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.

Secondary Antibody Applications

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life: 18 months from date of dispatch

Recommended Reading

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. The amino acid sequence, disulphide bonds and an unusual hydrophobic region *Biochem. J.* 195: 15-30

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3. Bukovský, 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 upregulated 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.*

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