

**Anti-Mouse CD90.2 (Thy-1.2)  
Antibody, Clone 53-2.1, Biotin**



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## Antibodies

Rat monoclonal IgG2a antibody  
against mouse CD90.2 (Thy-1.2),  
biotin-conjugated

Catalog #60115BT	500 µg	0.5 mg/mL
#60115BT.1	100 µg	0.5 mg/mL
#60115BT.2	50 µg	0.5 mg/mL

## Product Description

The 53-2.1 monoclonal antibody reacts with mouse CD90.2 (Thy-1.2), an ~25 - 35 kDa glycoposphatidylinositol (GPI)-anchored glycoprotein expressed at high levels on the surface of thymocytes, most peripheral T cells and lymphatic endothelial cells, and at lower levels on hematopoietic stem cells, some intraepithelial T lymphocytes, fibroblasts, and neurons. CD90.2 is an allelic form of the CD90 antigen expressed by mouse strains BALB/c, C3H/He, C57BL/6, C58/, CBA/J, DBA, NZB/-, SJL, and others. The 53-2.1 antibody does not react with CD90.1, which is expressed by mouse strains such as AKR/J, PL, and FVB/N, or with rat CD90. CD90.2 has been shown to be involved in costimulation of lymphocyte proliferation, as well as in hematopoietic stem cell differentiation and thymocyte adhesion. The 53-2.1 antibody reportedly blocks the binding of antibody clone 30-H12.

Target Antigen Name:	CD90.2 (Thy-1.2)
Alternative Names:	T25, Thy-1.2, Thy 1b, Thymus cell antigen 1 theta
Gene ID:	21838
Species Reactivity:	Mouse (does not react with CD90.1/Thy-1.1)
Host Species:	Rat (LOU)
Clonality:	Monoclonal
Clone:	53-2.1
Isotype:	IgG2a, kappa
Immunogen:	Mouse thymus or spleen cells
Conjugate:	Biotin

## Applications

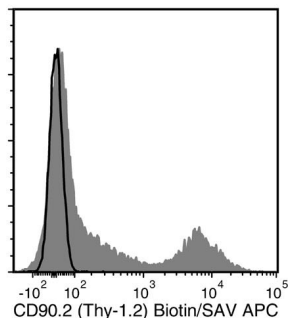
Verified:	FC
Reported:	FC, IF, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse T Cell Isolation Kit (Catalog #19851), EasySep™ Mouse CD4+ T Cell Isolation Kit (Catalog #19852), and EasySep™ Mouse CD8+ T Cell Isolation Kit (Catalog #19853).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by column chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .
Directions for Use:	For flow cytometry, the suggested use of this antibody is $\leq 0.06 \mu\text{g}$ per $1 \times 10^6$ cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD90.2 (Thy-1.2) Antibody, Clone 53-2.1, Biotin, followed by streptavidin (SAV) APC (filled histogram), or Rat IgG2a, kappa Isotype Control Antibody, Clone RTK2758, Biotin (Catalog #60076BT), followed by SAV APC (solid line histogram).

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

1. Moro K et al. (2015) Isolation and analysis of group 2 innate lymphoid cells in mice. *Nat Protoc* 10(5): 792–806. (FC)
2. Leveson-Gower DB et al. (2011) Low doses of natural killer T cells provide protection from acute graft-versus-host disease via an IL-4-dependent mechanism. *Blood* 117(11): 3220–9. (FC)
3. Buxbaum J et al. (2008) Hepatitis resulting from liver-specific expression and recognition of self-antigen. *J Autoimmun* 31(3): 208–15. (FC, IF, IHC)
4. Bailey SL et al. (2007) CNS myeloid DCs presenting endogenous myelin peptides “preferentially” polarize CD4+ T(H)-17 cells in relapsing EAE. *Nat Immunol* 8(2): 172–80. (FA, FC)
5. DiPaolo RJ et al. (2007) Autoantigen-specific TGFbeta-induced Foxp3+ regulatory T cells prevent autoimmunity by inhibiting dendritic cells from activating autoreactive T cells. *J Immunol* 179(7): 4685–93. (FC)
6. Nguyen VH et al. (2007) In vivo dynamics of regulatory T-cell trafficking and survival predict effective strategies to control graft-versus-host disease following allogeneic transplantation. *Blood* 109(6): 2649–56. (FC)
7. Jameson JM et al. (2004) A keratinocyte-responsive gamma delta TCR is necessary for dendritic epidermal T cell activation by damaged keratinocytes and maintenance in the epidermis. *J Immunol* 172(6): 3573–9. (FC, IF, IHC)
8. Aldrich MB et al. (2003) Impaired germinal center maturation in adenosine deaminase deficiency. *J Immunol* 171(10): 5562–70. (Depletion, FC, IF, IHC)
9. Hasslen SR et al. (1996) Preservation of spatial organization and antigenicity of leukocyte surface molecules by aldehyde fixation: Flow cytometry and high-resolution FESEM studies of CD62L, CD11b, and Thy-1. *J Histochem Cytochem* 44(10): 111–22. (Electron microscopy, FC)
10. Zheng B et al. (1996) T helper cells in murine germinal centers are antigen-specific emigrants that downregulate Thy-1. *J Exp Med* 184(3): 1083–91. (IHC)
11. Okada CY et al. (1990) Characterization of a rat monoclonal antibody specific for a determinant encoded by the V beta 7 gene segment. Depletion of V beta 7+ T cells in mice with Mls-1a haplotype. *J Immunol* 144(9): 3473–37. (IP)
12. Ledbetter JA & Herzenberg LA (1979). Xenogeneic monoclonal antibodies to mouse lymphoid differentiation antigens. *Immunol Rev* 47: 63–90. (FA, FC, IP, RIA)

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