

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



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Antibodies

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

Catalog #60115
#60115.1

500 µg 0.5 mg/mL
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:	Unconjugated

Applications

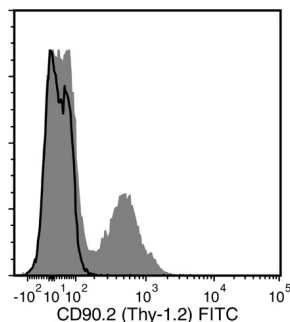
Verified:	FC
Reported:	Depletion, Electron microscopy, FA, FC, IF, IHC, IP, RIA
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse T Cell Isolation Kit (Catalog #19851), EasySep™ Mouse CD4+ T Cell Isolation 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 affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 5 µL per 1 × 10 ⁶ cells in 100 µL or per 100 µL whole blood. 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, followed by a mouse anti-rat IgG2a antibody, FITC (filled histogram), or Rat IgG2a, kappa Isotype Control Antibody, Clone RTK2758 (Catalog #60076), followed by a mouse anti-rat IgG2a antibody, FITC (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 or contact us at 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)

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2017 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists, and EasySep are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.