

Anti-Human CD2 Antibody, Clone RPA-2.10, Biotin



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

Mouse monoclonal IgG1 antibody
against human, rhesus, cynomolgus
CD2, biotin-conjugated

Catalog #60007BT
#60007BT.1

100 ug 0.5 mg/mL
25 ug 0.5 mg/mL

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

Product Description

The RPA-2.10 antibody reacts with CD2, an ~50 kDa type I transmembrane glycoprotein and a member of the immunoglobulin (Ig) superfamily; two Ig-like domains are located in its extracellular portion. CD2 is broadly expressed on peripheral T and NK cells, dendritic cells, erythrocytes, most thymic T cells, subsets of thymic B cells, and on the endothelium. CD2 expression appears early during T cell differentiation. Aberrant expression has been observed in some lymphomas and myeloid leukemias. CD2 is critically important for T cell activation and signaling, and lymphocyte adhesion. The primary ligand for CD2 is CD58 (LFA-3) located on antigen-presenting cells, with additional ligands comprising CD15 (SSEA-1), CD48 and CD59. Notably, the RPA-2.10 antibody blocks the mixed lymphocyte reaction.

Target Antigen Name:	CD2
Alternative Names:	LFA-2, SRBC-R, T11
Gene ID:	914
Species Reactivity:	Human, Rhesus, Cynomolgus, Baboon, Chimpanzee, Capuchin Monkey, Squirrel Monkey, Pigtailed Macaque, Pig
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	RPA-2.10
Isotype:	IgG1, kappa
Immunogen:	Human CD2 recombinant protein
Conjugate:	Biotin

Applications

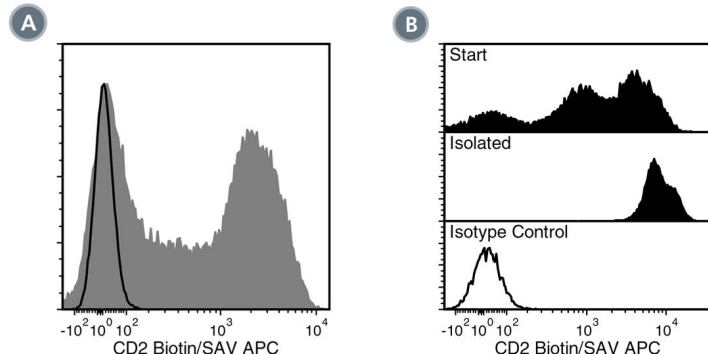
Verified:	FC
Reported:	FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ HLA CD3 Positive Selection Kit (Catalog #18051HLA) and EasySep™ HLA Whole Blood CD3 Positive Selection Kit (Catalog #18081HLA).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
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 $\leq 0.25 \mu\text{g}$ per 1×10^6 cells in 100 μL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human buffy coat cells labeled with Anti-Human CD2 Antibody, Clone RPA-2.10, Biotin followed by streptavidin (SAV) APC (filled histogram) or a mouse IgG1, kappa biotin isotype control antibody followed by SAV APC (black line histogram).

(B) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) processed with the EasySep™ HLA CD3 Positive Selection Kit and labeled with Anti-Human CD2 Antibody, Clone RPA-2.10, Biotin followed by streptavidin (SAV) APC. Histograms show labeling of PBMCs (Start) and isolated cells (Isolated). Labeling of start cells with a mouse IgG1, kappa biotin isotype control antibody followed by SAV APC is shown (open 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. Aversa GG, et al. RPA-2.10: an anti-CD2 monoclonal antibody that inhibits alloimmune responses and monitors T cell activation. *Transplant Proc* 19(1 Pt 1): 277-78, 1987 (FA/blocking)
2. Knapp W, et al. Eds. *Leucocyte Typing IV: White Cell Differentiation Antigens*. Oxford University Press. New York, pp. 628-34, 1989
3. Ozwara H, et al. Flow cytometric analysis on reactivity of human T lymphocyte-specific and cytokine-receptor-specific antibodies with peripheral blood mononuclear cells of chimpanzee (*Pan troglodytes*), rhesus macaque (*Macaca mulatta*), and squirrel monkey (*Saimiri sciureus*). *J Med Primatol* 26(3): 164-71, 1997 (FC)
4. Scherthaner GH, et al. Expression, epitope analysis, and functional role of the LFA2 antigen detectable on neoplastic mast cells. *Blood* 98(13): 3784-92, 2001 (FC)
5. Kap YS, et al. A monoclonal antibody selection for immunohistochemical examination of lymphoid tissues from non-human primates. *J Histochem Cytochem* 57(12): 1159-67, 2009 (IHC)
6. Zaretsky AG, et al. T follicular helper cells differentiate from Th2 cells in response to helminth antigens. *J Exp Med* 206(5): 991-99, 2009 (FC, ICC, IF, IHC)
7. Perona-Wright G, et al. Sustained signaling by canonical helper T cell cytokines throughout the reactive lymph node. *Nat Immunol* 11(6): 520-26, 2010 (FC)
8. Thummler K, et al. Immune regulation by peripheral suppressor T cells induced upon homotypic T cell/T cell interactions. *J Leukoc Biol* 88(5): 1041-50, 2010 (FC)
9. Yoshino N, et al. Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of cynomolgus monkeys (*Macaca fascicularis*) by using anti-human cross-reactive antibodies. *Exp Anim* 49(2): 97-110, 2000 (FC)

Copyright © 2013 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 Inc. All other trademarks are the property of their respective holders.

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485 MEDICAL DEVICE STANDARDS.