

## Anti-Human CD2 Antibody, Clone RPA-2.10, APC



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, APC-conjugated

Catalog #100-0432	500 Tests	5 µL (0.03 µg)/test (6 µg/mL)
#60007AZ	100 Tests	5 µL (0.03 µg)/test (6 µg/mL)
#60007AZ.1	25 Tests	5 µL (0.03 µg)/test (6 µg/mL)

## 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, Pigtailed Macaque, Squirrel Monkey, Pig
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	RPA-2.10
Isotype:	IgG1, kappa
Immunogen:	Human CD2 recombinant protein
Conjugate:	APC (Allophycocyanin)

## Applications

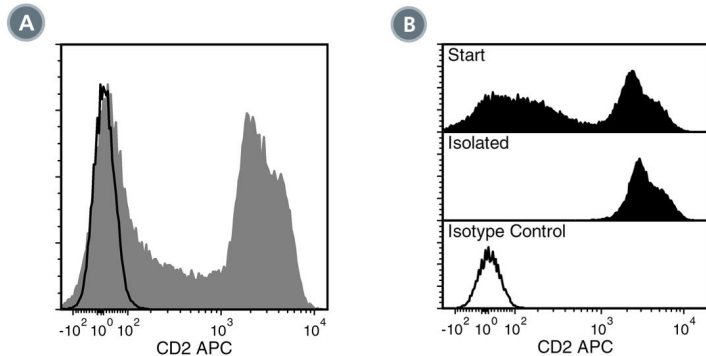
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ HLA Chimerism Whole Blood CD3 Positive Selection Kit (Catalog #17871).

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 saline, pH 7.2, containing 0.09% sodium azide, 0.1% gelatin, and < 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is ≤ 0.03 µg per 1 × 10 <sup>6</sup> cells in 100 µL. 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, APC (filled histogram) or a mouse IgG1, kappa APC isotype control antibody (solid 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, APC. Histograms show labeling of PBMCs (Start) and isolated cells (Isolated). Labeling of start cells with a mouse IgG1, kappa APC isotype control antibody is shown (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, visit [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

1. Tanaka Y et al. (2019) Ex vivo-expanded highly purified natural killer cells in combination with temozolomide induce antitumor effects in human glioblastoma cells in vitro. *PLoS One* 14(3): 1–14. (FC)
2. Bill M et al. (2018) Mapping the CLEC12A expression on myeloid progenitors in normal bone marrow; implications for understanding CLEC12A-related cancer stem cell biology. *J Cell Mol Med* 22(4): 2311–8. (FACS)
3. Kostrzewski T et al. (2018) Multiple levels of control determine how E4bp4/Nfil3 regulates NK cell development. *J Immunol* 200(4): 1370–81. (FC)
4. Alhaj Hussen K et al. (2017) Molecular and functional characterization of lymphoid progenitor subsets reveals a bipartite architecture of human lymphopoiesis. *Immunity* 47(4): 680-696.e8. (FACS, FC)
5. Martin G et al. (2017) Enrichment of the HIV reservoir in CD32+ CD4 T cells occurs early in blood and tissue. *bioRxiv*: 169342. (FC)
6. Marycz K et al. (2016) Endurance exercise mobilizes developmentally early stem cells into peripheral blood and increases their number in bone marrow: implications for tissue regeneration. *Stem Cells Int* 2016:5756901. (FC)
7. Farnebo L et al. (2015) Targeting Toll-like receptor 2 inhibits growth of head and neck squamous cell carcinoma. *Oncotarget* 6(12): 9897–907. (FC)
8. Perona-Wright G et al. (2010) Sustained signaling by canonical helper T cell cytokines throughout the reactive lymph node. *Nat Immunol* 11(6): 520–6. (FC)
9. Thümmel K et al. (2010) Immune regulation by peripheral suppressor T cells induced upon homotypic T cell/T cell interactions. *J Leukoc Biol* 88(5): 1041–50. (FC)
10. Glatman Zaretsky A et al. (2009) T follicular helper cells differentiate from Th2 cells in response to helminth antigens. *J Exp Med* 206(5): 991–9. (FC, ICC, IF, IHC)
11. Kap YS et al. (2009) A monoclonal antibody selection for immunohistochemical examination of lymphoid tissues from non-human primates. *J Histochem Cytochem* 57(12): 1159–67. (IHC)
12. Piriou-Guzylack L & Salmon H. (2008) Membrane markers of the immune cells in swine: an update. *Vet Res* 39(6): 54.
13. Scherthner GH et al. (2001) Expression, epitope analysis, and functional role of the LFA-2 antigen detectable on neoplastic mast cells. *Blood* 98(13): 3784–92. (FC)
14. Yoshino N et al. (2000) 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. (FC)
15. Ozwara H et al. (1997) 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. (FC)
16. Knapp W et al. (Eds.). (1989) *Leucocyte typing IV: white cell differentiation antigens*. New York: Oxford University Press.
17. Aversa GG et al. (1987) RPA-2.10: an anti-CD2 monoclonal antibody that inhibits alloimmune responses and monitors T cell activation. *Transplant Proc* 19(1 Pt 1): 277–8. (FA/Blocking)

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2020 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. 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.