

Anti-Human CD8a Antibody, Clone RPA-T8, Biotin



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

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

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Antibodies

Mouse monoclonal IgG1 antibody
against human, rhesus, cynomolgus
CD8a, biotin-conjugated

Catalog #60022BT
#60022BT.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-T8 antibody reacts with CD8a, a 32 - 34 kDa type I transmembrane glycoprotein which is a subunit of CD8. CD8 is a disulfide-bonded dimer, found either as a heterodimer of CD8a (α) and CD8b (β) subunits (i.e., $\alpha\beta$) or a homodimer ($\alpha\alpha$). CD8 acts as a co-receptor to the T cell receptor (TCR) during T cell activation by binding MHC Class I molecules presented by an antigen-presenting cell. It functions to strengthen the association between the TCR and MHC I-antigen complex and to amplify signals from the TCR to the cytoplasm through the interaction of its intracellular domain with cytoplasmic tyrosine kinases such as Lck. The CD8a chain binds to the $\alpha 3$ domain of class I MHC molecules. CD8 is expressed by a majority of thymocytes, a subset of mature peripheral blood T cells (T cytotoxic cells), a proportion of β T cells, and at lower levels by NK cells (which predominantly express CD8a homodimers).

Target Antigen Name:	CD8a
Alternative Names:	Leu2, T8
Gene ID:	925
Species Reactivity:	Human, Rhesus, Cynomolgus, Baboon, Chimpanzee, Pigtailed Macaque, Sooty Mangabey
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	RPA-T8
Isotype:	IgG1, kappa
Immunogen:	Full-length human CD8 protein
Conjugate:	Biotin

Applications

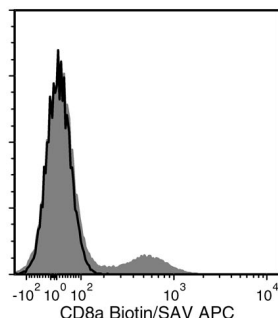
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ HLA T Cell Enrichment Kit (Catalog #19051HLA), EasySep™ Human CD8+ T Cell Enrichment Kit (Catalog #19053) and EasySep™ HLA CD2 Positive Selection Kit (Catalog #18657HLA).

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 $\leq 0.125 \mu\text{g}$ per 1×10^6 cells in 100 μL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD8a Antibody, Clone RPA-T8, Biotin followed by streptavidin (SAV) APC (filled histogram) or a mouse IgG1, kappa biotin isotype control antibody followed by SAV APC (black 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. Reimann KA, et al. Use of human leukocyte-specific monoclonal antibodies for clinically immunophenotyping lymphocytes of rhesus monkeys. *Cytometry* 17(1): 102-08, 1994
2. Schlossman S, et al. Eds. *Leucocyte Typing V. White Cell Differentiation Antigens*. Oxford University Press, New York, 1995
3. Barclay AN, et al. Eds. *The Leukocyte Antigens Facts Book*, 2nd Edition. Academic Press, New York, pp. 149-51, 1997
4. Sopper S, et al. Lymphocyte subsets and expression of differentiation markers in blood and lymphoid organs of rhesus monkeys. *Cytometry* 29(4): 351-62, 1997
5. Kishimoto T, et al. Eds. *Leukocyte Typing VI. White Cell Differentiation Antigens*. Garland Publishing Inc., New York, pp. 1114-15, 1998
6. 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)
7. Mack CL, et al. Biliary atresia is associated with CD4+ Th1 cell-mediated portal tract inflammation. *Pediatr Res* 56(1): 79-87, 2004 (IHC)
8. Thakral D, et al. Differential expression of the human CD8beta splice variants and regulation of the M-2 isoform by ubiquitination. *J Immunol* 180(11):7431-42, 2008 (FC)
9. Kmiecik M, et al. Human T cells express CD25 and Foxp3 upon activation and exhibit effector/memory phenotypes without any regulatory/suppressor function. *J Transl Med* 7:89, 2009 (FC)
10. Rout N, et al. Paucity of CD4+ natural killer T (NKT) lymphocytes in sooty mangabeys is associated with lack of NKT cell depletion after SIV infection. *PLoS One* 5(3):e9787, 2010 (FC)

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