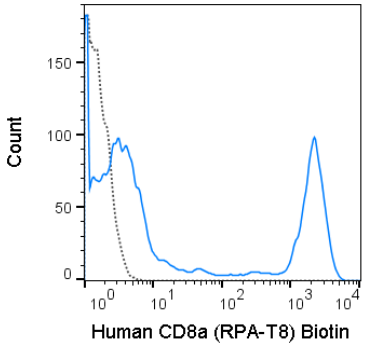
TECHNICAL DATA SHEET

Biotin Anti-Human CD8a (RPA-T8)

Catalog Number: 30-0088

PRODUCT INFORMATION

Contents:	Biotin Anti-Human CD8a (RPA-T8)
Isotype:	Mouse IgG1, kappa
Concentration:	0.5 mg/mL
Clone:	RPA-T8
Reactivity:	Human
Use By:	12 months from date of receipt
Storage Conditions:	2-8°C
Formulation:	10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, pH 7.2



Human peripheral blood lymphocytes were stained with 0.125 ug Biotin Anti-Human CD8a (30-0088) (solid line) or 0.125 ug Biotin Mouse IgG1 isotype control (dashed line), followed by Streptavidin PE.

DESCRIPTION

The RPA-T8 antibody is specific for the 32-34 kDa alpha chain of human CD8, known as CD8a or CD8 alpha. CD8a can form a homodimer (CD8 alpha-alpha), but is more commonly expressed as a heterodimer with a second chain known as CD8b or CD8 beta. CD8 acts as a co-receptor for antigen recognition and subsequent T cell activation that is initiated upon binding of the T cell receptor (TCR) to antigen-bearing MHC Class I molecules. The cytoplasmic domains of CD8 provide binding sites for the tyrosine kinase lck, facilitating intracellular signaling events that lead to T cell activation, development, and cytotoxic effector functions. CD8+ cytotoxic T cells (CTLs) play an important role in inducing cell death of tumor cells, as well as cells infected by virus, bacteria or parasites.The RPA-T8 antibody is widely used as a phenotypic marker for CD8 on cytotoxic T cells, thymocytes, as well as on certain cell types that do not also express the TCR, including some NK cells and lymphoid dendritic cells. It is cross-reactive with CD8 in several non-human species, including Baboon, Chimpanzee, Cynomolgus and Rhesus. If used together with an alternative Anti-Human CD8a clone, Hit8a, the RPA-T8 antibody will not block binding of Hit8a to CD8a.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted biotin removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been quality-tested for flow cytometry using an appropriate cell type (as indicated). Please refer to the figure legend for the optimal concentration used to stain the tissue shown. We recommend titrating the antibody under your specific conditions to determine the optimal concentration of antibody needed in your experimental system.

REFERENCES

Estes JD, Gordon SN, Zeng M, Chahroudi AM, Dunham RM, Staprans SI, Reilly CS, Silvestri G, and Haase AT. 2008. J. Immunol. 180: 6798-6807. (Flow cytometry - Rhesus macaque and Sooty Mangabey)Chlereth B, Fichtner I, Lorenczewski G, Kleindienst P, Brischwein K, da Silva A, Kufer P, Lutterbuese R, Junghahn I, Kasimir-Bauer S, Wimberger P, Kimmig R and Baeuerle PA. 2005. Cancer Res. 65: 2882-2889. (Immunohistochemistry – frozen tissue)Mack CL, Tucker RM, Sokol RJ, Darrer FM, Kotzin BL, Whitington PF and Miller SD. 2004. Pediatr. Res. 56(1):79-87. (Immunohistochemistry – frozen tissue)Huang Z-Y, Hunter S, Kim M-K, Chien P, Worth RG, Indik ZK, and Schreiber AD. 2004. J. Leukoc. Biol. 76:491-499. (in vitro activation)Kayagaki N, Yamaguchi N, Nagao F, Matsuo S, Maeda H, Okumura K, and Yagita H. 1997. Proc. Natl. Acad. Sci. 94:3914-3919. (Immunoprecipitation – transfected cells)Deng MC, Bell S, Huie P, Pinto F, Hunt SA, Stinson EB, Sibley R, Hall BM, and Valantine HA. 1995. Circulation. 91: 1647-1654. (Immunohistochemistry – OCT embedded frozen tissue)

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.