

TECHNICAL DATA SHEET

Biotin Anti-Human CD8 (SK1)

Catalog Number: 30-0087

PRODUCT INFORMATION

Contents: Biotin Anti-Human CD8 (SK1)

Isotype: Mouse IgG1, kappa

Concentration: 0.5 mg/mL

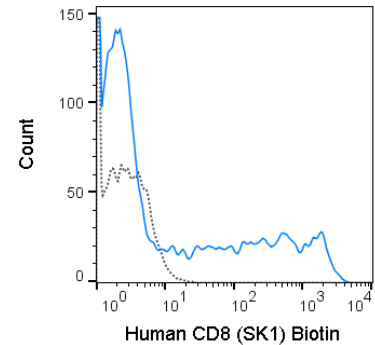
Clone: SK1

Reactivity: Human

Use By: 12 months from date of receipt

Storage Conditions: 2-8°C

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃, pH 7.2



Human peripheral blood lymphocytes were stained with 0.25 ug Biotin Anti-Human CD8 (30-0087) (solid line) or 0.25 ug Biotin Mouse IgG1 isotype control (dashed line), followed by Streptavidin PE.

DESCRIPTION

The SK1 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 SK1 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, RPA-T8, the SK1 antibody will not block binding of RPA-T8 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

- Campanelli R, Palermo B, Garbelli S, Mantovani S, Lucchi P, Necker A, Lantelme E and Giachino C. 2002. *Int Immunol.* 14(1): 39-44. (Flow Cytometry)
- Walter S, Herrgen L, Schoor O, Jung G, Wernet D, Buhning H-J, Rammensee H-G and Stevanovic S. 2003. *J. Immunol.* 171(10): 4974-4978. (Flow Cytometry)
- Cervasi B, Paiardinin M, Serafini S, Fraternali A, Menotta M, Engram J, Lawson B, Staprans I, Piedimonte G, Perno CF, Silvestri G and Magnani M. 2006. *J. Virol.* 80(21): 10335-10345. (Flow Cytometry – Sooty Mangabeys)
- Verstrepen BE, Verschoor EJ, Fagrouch ZC, Mooij P, de Groot NG, Bontrop RE, Bogers WM, Heeney JL and Koopman G. 2014. *PLoS ONE* 9(4): e95103. doi:10.1371/journal.pone.0095103. (Flow Cytometry – Chimpanzee)
- Permar SR, Klumpp SA, Mansfield KG, Kim W-K, Gorgone DA, Lifton MA, Williams KC, Schmitz JE, Reimann KA, Axthelm MK, Polack FP, Griffin DE and Letvin NL. 2003. *J. Virol.* 77(7): 4396-4400. (Flow Cytometry – Rhesus)
- Ahmed AFK, Ohtani H, Nio M, Fuanki N, Shimaoka S, Nagura H and Ohi R. 2001. *J. Pathol.* 193(3): 383-389. (Immunohistochemistry)
- Bukowska-Straková K, Baran J, Gawlicka M and Kowalczyk, D. 2006. *Folia Histochemica et Cytobiologica* 44(3): 179-183.

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.

For Research Use Only.

Not for use in diagnostic or therapeutic procedures. Not for resale. Not for distribution without written consent. Tonbo Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Tonbo Biosciences, Tonbo Biosciences Logo and all other trademarks are the property of Tonbo Biotechnologies Corporation. © 2013 Tonbo Biosciences.