TECHNICAL DATA SHEET

PE-Cy7 Anti-Mouse CD8a (53-6.7)

Catalog Number: 60-0081

PRODUCT INFORMATION

Contents: PE-Cy7 Anti-Mouse CD8a (53-6.7)

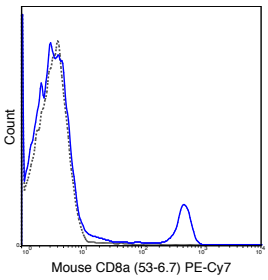
Isotype: Rat IgG2a, kappa

Concentration: 0.2 mg/mL

Clone: 53-6.7

Reactivity: Mouse

Formulation: 10 mM NaH2PO4, 150 mM NaCl, 0.09% NaN3, 0.1% gelatin, pH7.2



C57Bl/6 splenocytes were stained with 0.5 ug PE-Cy7 Anti-Mouse CD8a (60-0081) (solid line) or 0.5 ug PE-Cy7 Rat IgG2a isotype control (dashed line).

DESCRIPTION

The 53-6.7 antibody reacts with the 32-34 kDa alpha subunit of mouse 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 in 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 53-6.7 antibody is widely used as a phenotypic marker for mouse CD8a expression 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.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye 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 mouse spleen cells, or an appropriate cell type (where indicated). The amount of antibody required for optimal staining of a cell sample should be determined empirically in your system.

REFERENCES

Willinger T and Flavell RA. 2012. Proc. Natl. Acad. Sci. 109:8670-8675. (flow cytometry)Thaventhiran JED, Hoffmann A, Magiera L, de la Roche M, Lingel H, Brunner-Weinzierl M, and Fearon DT. 2012. Proc. Natl. Acad. Sci. 10.1073. (immunohistochemistry – OCT embedded frozen tissue)Mochimaru H, Usui T, Yaguchi T, Nagahama Y, Hasegawa G, Usui Y, Shimmura S, Tsubota K, Amano S, Kawakami Y, and Ishida S. 2008. Invest. Ophthalmol. Vis. Sci. 49(5):2172-2127. (in vivo cell depletion)Fan K, Zhou M, Pathak MK, Lindner DJ, Altuntas CZ, Touhy VK, Borden EC, and Yi T. 2005. J. Immunol. 175:7003-7008. (immunohistochemistry – frozen tissue)Nutt SL, Metcalf D, D'Amico A, Polli M, and Wu L. 2005. J. Exp. Med. 201:221-231. (Immunomagnetic bead depletion)Fan G-C, and Singh, RR. 2002. J. Exp. Med. 196: 731-741. (in vitro cell depletion)Bosselut R, Zhang W, Ashe JM, Kopacz JL, Samelson LE, and Singer A. 1999. J. Exp. Med. 190: 1517-1526. (immunoprecipitation)

NOTE: Please choose the appropriate format for each application. Citations are provided as a convenience to you; please consult Materials and Methods sections for additional details about the use of any product in these publications.