

TECHNICAL DATA SHEET

In Vivo Ready™ Anti-Mouse CD8a (53-6.7)

Catalog Number: 40-0081

PRODUCT INFORMATION

Contents: In Vivo Ready™ Anti-Mouse CD8a (53-6.7)

Isotype: Rat IgG2a, kappa

Concentration: 2 mg/mL

Clone: 53-6.7

Reactivity: Mouse

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, pH7.2

Endotoxin Level: Less than or equal to 0.01 EU/ug, as determined by the LaL assay

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 preparation was purified from tissue culture supernatant via affinity chromatography. For In Vivo Ready™ (IVR) products, each preparation is also evaluated for endotoxin levels using the LAL assay. It is recommended to store the product undiluted at 4°C. Do not freeze.

APPLICATION NOTES

This purified format is guaranteed to be >90% pure as determined by SDS-PAGE analysis. 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.

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.

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