

Mouse CD8 (Lyt 2.1) Antibody

Purified *in vivo* Gold™ Functional Grade

Hybridoma Monoclonal Antibody

Product Information

Product No.: C3110

Clone: 116-13.1

Isotype: Mouse IgG2a k

Storage: Sterile 2 to 8°C

Product Description

Specificity:

116-13.1 activity is directed against mouse CD8 (Lyt 2.1).

Antigen Distribution:

CD8 is present on thymocytes, T lymphocytes, and natural killer cells.

Background:

CD8 is an integral membrane protein essential to the immune response¹. CD8 acts as a co-receptor for the MHC class I molecule:peptide complex and recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex, leading to activation of cytotoxic T-lymphocytes which recognize and eliminate infected cells and tumor cells. CD8+ T cell differentiation is tightly regulated and the T cell response depends on the antigen encountered. The immune response to acute infection, autoimmunity, graft vs host disease, tumors, chronic infection, and self-tolerance are all affected by CD8 + T cells².

116-13.1 is commonly used for the depletion of CD8+ T cells, such as in studies on allotransplantation tolerance^{3,4,5}, CD8+ T cell-mediated antitumor immune response during cancer immunotherapy⁶, induction of MHC-mismatched mixed chimerism in NOD mice for the therapy of type I diabetes⁷, and to better understand the development of autoimmune thyroid disease⁸. Such depletion studies have shown, for example, that CD8+ T lymphocytes play a role in graft rejection via an indirect pathway⁴.

116-13.1 was first described in Monoclonal Antibodies and T-Cell Hybridomas published in 1983⁹.

Known Reactivity Species:

Mouse

Format:

Purified *in vivo* GOLD™ Functional Grade

Immunogen:

CE mouse spleen cells and thymocytes.

Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity

≥95% monomer by analytical SEC, >95% by SDS Page

Endotoxin

< 1.0 EU/mg as determined by the LAL method

Product Datasheet

www.leinco.com

Storage and Stability

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at $\leq -70^{\circ}\text{C}$.

Avoid Repeated Freeze Thaw Cycles.

Product Preparation

Functional grade preclinical antibodies are manufactured in an animal free facility using only in vitro protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Other Applications Reported in Literature:

FC

Depletion

Country of Origin

USA

References

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- 5) 5 Wang M, Racine J, Zhang M, et al. J Immunol. 193(4):2005-2015. 2014.
- 6) 6 Yang Y, Liu C, Peng W, et al. Blood. 120(23):4533-4543. 2012.
- 7) 7 Racine JJ, Wang M, Zhang M, et al. Diabetes. 63(6):2051-2062. 2014.
- 8) 8 Yu S, Fang Y, Sharav T, et al. J Immunol. 186(4):2655-2662. 2011.
- 9) 9 Shen F-W. 1983. Monoclonal antibodies to mouse lymphocyte differentiation alloantigens. Hammerling GJ, Hammerling U, Kearney JF eds. Monoclonal Antibodies and T-Cell Hybridomas 2nd Ed. Elsevier, Amsterdam.