

Mouse CD40 Antibody

Purified in vivo PLATINUM™ Functional Grade
Monoclonal Antibody

Product Information

Product No.: C2838

Clone: GK1.5

RRID: AB_2829596

Isotype: Rat IgG2b κ

Storage: Sterile 2 to 8°C

Product Description

Specificity:

Rat Anti-Mouse CD4 (Clone GK1.5) recognizes an epitope on Mouse CD4. This monoclonal antibody was purified using multi-step affinity chromatography methods such as Protein A or G depending on the species and isotype. This antibody was also pathogen tested and third-party certified by IDEXX BioResearch to meet the lowest mycoplasma specification and free of any viral pathogens of concern.

Antigen Distribution:

The CD4/L3T4 antigen is expressed by the helper/inducer subset of mouse T-cells. The antigen is present on approximately 80% of thymocytes, 20% of spleen cells and 60% of lymph node cells. The expression of L3T4 correlates with class II MHC antigen reactivity on cloned T-cell lines.

Background:

CD4 (cluster of differentiation 4) is a glycoprotein expressed on the surface of T helper cells, regulatory T cells, monocytes, macrophages, and dendritic cells. CD4 interacts with class II molecules of the major histocompatibility complex (MHC) enhancing the signal for T-cell activation.⁶

Known Reactivity Species:

Mouse

Format:

Purified in vivo PLATINUM™ Functional Grade

Immunogen:

Mouse CTL clone V4

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

≥98% monomer by analytical SEC, >95% by SDS Page

Endotoxin

<0.5 EU/mg as determined by the LAL method

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 *in vitro* 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.

Pathogen Testing

To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of Leinco's Purified Functional PLATINUM™ antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

CyTOF®

FC The suggested concentration for this GK1.5 antibody for staining cells in flow cytometry is $\leq 1.0 \mu\text{g}$ per 10^6 cells in a volume of 100 μl . Titration of the reagent is recommended for optimal performance for each application.

Other Applications Reported in Literature:

B

Costim

Depletion

IHC

IP

Country of Origin

USA

References

- 1) Ardolino, M. *et al.* (2018) *J Clin Invest.* 128(10):4654-4668. [PubMed](#)
- 2) Schreiber, RD. *et al.* (2017) *Cancer Immunol Res.* 5(2):106-117. [PubMed](#)
- 3) Nicolas, JF. *et al.* (2002) *J Immunol.* 168(6):3079-87. [Article Link](#)
- 4) Shin, H. *et al.* (2018) *J Virol.* 92(7): e00038-18. [PubMed](#)
- 5) Chiang, BL. *et al.* (2001) *Immunology.* 2001 103(3): 301–309. [PubMed](#)
- 6) Hendrickson, WA. *et al.* (1994) *Structure* 2: 59 7.) Skyberg, J. A. *et al.* (2020) *Infection and Immunity.* 88: 5 [Journal Link](#)
- 7) Hawman DW, *et al.* (2021) *Microorganisms* 9(2):279 [Journal Link](#)