

Anti-Rat Kappa Light Chain Antibody

Purified *in vivo* GOLD™ Functional Grade

Monoclonal Antibody

Product Information

Product No.: I-2027

Clone: MAR18.5

Isotype: Mouse IgG2a k

Storage: Sterile 2° to 8°C

Product Description

Specificity:

MAR18.5 activity is directed against rat kappa immunoglobulin light chain of both RI-1a and RI-1b allotypes.

Antigen Distribution:

Immunoglobulins consist of heavy chains and light chains. Kappa is a class of light chain and is encoded by the V (variable), J (joining), and C (constant) segments.

Background:

MAR18.5 is a monoclonal antibody directed against rat kappa light chains¹. MAR18.5 was generated by immunizing SJL/J mice with soluble rat immunoglobulin, followed by the creation of a B cell hybridoma line via fusion of immune spleen with P3X63Ag8 myeloma cells. MAR18.5 hybridoma cells secrete an IgG2a kappa monoclonal antibody that strongly binds to protein A. Additionally, MAR18.5 antibody binds similarly to Ig of RI-1a and RI-1b allotypes. MAR18.5 antibody can be used in combination with anti-CD19 and anti-CD22 for *in vivo* B cell depletion in mice^{2,3}. In a study on Fcγ receptor-mediated phagocytosis, MAR18.5 antibody was used as a secondary cross-linking antibody during stimulation of macrophages grown in medium lacking L cell-conditioned medium (LCM) and treated with chilled supernatant from the rat anti-FcγR 2.4G2 hybridoma⁴. Additionally, MAR18.5 antibody has been used for T cell isolation and complement lysis in combination with J11d.2 (anti-heat-stable Ag), 2.43 (anti-CD8), M5/114 (anti-class II), and 2.4G2 (anti-FcR)⁵.

Known Reactivity Species:

Rat

Format:

Purified *in vivo* GOLD™ Functional Grade

Immunogen:

Soluble rat immunoglobulin

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

Endotoxin

< 1.0 EU/mg as determined by the LAL method

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

410 Axminster Dr, St. Louis, MO 63026

(800) 538-1145

leincoglobal@leinco.com

Storage and Stability

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

Country of Origin

USA

References

- 1) Lanier LL, Gutman GA, Lewis DE, et al. *Hybridoma*. 1(2):125-131. 1982.
- 2) Säwén P, Lang S, Mandal P, et al. *Cell Rep.*;14(12):2809-2818. 2016.
- 3) Keren Z, Naor S, Nussbaum S, et al. *Blood*. 117(11):3104-3112. 2011.
- 4) Fitzer-Attas CJ, Lowry M, Crowley MT, et al. *J Exp Med*. 191(4):669-682. 2000.
- 5) Hurst SD, Sitterding SM, Ji S, Barrett TA. *Proc Natl Acad Sci U S A*. 94(8):3920-3925. 1997.
- 6) Nilsson G, Matsson P, Ahlstedt S. *Scand J Immunol*. 31(1):53-57. 1990.
- 7) Elbe-Bürger A, Mommaas AM, Prieschl EE, et al. *Immunology*. 101(2):242-253. 2000.
- 8) Zheng Y, Zhou ZZ, Lyttle CR, et al. *J Leukoc Biol*. 44(1):27-32. 1988.
- 9) Zhou ZZ, Zheng Y, Steenstra R, et al. *Autoimmunity*. 3(2):125-134. 1989.
- 10) Jonsson CA, Carlsten H. *Int Immunopharmacol*. 3(1):31-37. 2003.
- 11) Mpandi M, Otten LA, Lavanchy C, et al. *J Virol*. 77(17):9369-9377. 2003.
- 12) Reitan SK, Hannestad K. *Proc Natl Acad Sci U S A*. 99(11):7588-7593. 2002.