

Product Datasheet

www.leinco.com



Anti-Mouse IL-21R (Clone 4A9)

Purified

Hybridoma Monoclonal Antibody

Product Information

Product No.: I-481
Clone: 4A9
Isotype: Rat IgG2a κ
Storage: Sterile 2-8°C

Product Description

Specificity:

Clone 4A9 activity is directed against murine Interleukin-21 Receptor (CD360).

Antigen Distribution:

IL-21R is expressed on most B cells as well as some T cells and NK cells.

Background:

Interleukin-21 receptor (IL-21R) is a single pass type I membrane protein and a member of the type I cytokine receptor family. It is the receptor for Interleukin-21 (IL-21) and upon binding forms a heterodimer with the common gamma subunit (CD132; IL-2RG). IL-21R and IL-21 are important for the proliferation and differentiation of B cells, T cells, and natural killer cells. They function in survival signalling for antiviral CD8⁺ T cells during chronic infections and induce growth and differentiation of mature B cells in Ig-secreting plasma cells. Additionally, they prevent T cell exhaustion and viral persistence by limiting virus driven Treg cell proliferation¹. IL-21 and IL21-R function as early as the pro-B cell stage, with receptor-mediated signalling increasing as cells mature². When IL-21R binds IL-21, the JAK/STAT transduction pathway is activated.

4A9 was generated by immunizing Lewis rats with IL-21R-transfected YB2/0 and subsequent fusion of immunized spleen cells to SP2/0³. FACS analysis and immunoprecipitation studies show that 4A9 selectively binds to IL-21R. Additionally, 4A9 stains the majority of spleen cells from wild type C57BL/6 mice but not IL-21R deficient mice. IL-21 blocks the binding of 4A9 to IL-21R-transfected YB2/0 cells.

Known Reactivity Species:

Mouse

Format:

Purified

Immunogen:

Rat YB2/0 hybridoma transfectant cell line expressing truncated IL-21R

Formulation

This purified antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.

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 -80°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:

FA,
IP,
FC

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

Product Datasheet

www.leinco.com

Country of Origin

USA

References

1. Schmitz I, Schneider C, Fröhlich A, et al. PLoS Pathog. 9(5):e1003362. 2013.
2. Simard N, Konforte D, Tran AH, et al. J Immunol. 186(9):5244-5253. 2011.



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

410 Axminister Dr, St. Louis, MO 63026

(800) 538-1145

leincoglobal@leinco.com