

## Anti-Mouse CD217 (IL-17 Receptor A) APC

Catalog Number: 17-7182 Also known as: IL-17 alpha receptor, IL-17R, IL-17RA RUO: For Research Use Only. Not for use in diagnostic procedures.



#### Description

The monoclonal antibody PAJ-17R recognizes mouse IL-17 receptor A (IL-17RA) also known as CD217. This single transmembrane domain-containing receptor can homo- or heterodimerize with IL-17RC or IL-17RB. IL-17RA binds to IL-17A, IL-17F(cytokines of the Th 17 lineage), or IL-17E (IL-25). Ligand binding to the single subunit of IL-17RA has been shown to induce homo- or heterodimerization of the receptor complex that in turn recruits Act-1 via the SEFIR domains leading to recruitment of TRAF6 and signaling through the NFkB and MAPK pathways.

Initial reports suggested ubiquitous expression of IL-17RA based on binding studies with IL-17-Fc and expression of mRNA. Interestingly, despite this, not all cells expressing the receptor respond to IL-17A. In particular, resting T cells do not respond. It is not known if the expression level of IL-17RA protein varies or if some cells express the receptor but are not able to activate downstream signaling events. Recent evidence suggests a more limited expression profile based on IL-17RA knock-out mice which display decreased numbers of neutrophils with impaired function in response to challenge with *K. pneumonia* or *Candida albicans*. This suggests IL-17RA plays a more dominant and critical role in neutrophil development and function. Our studies suggest that expression can be found on abundantly on Gr-1<sup>dim</sup> population and many of the Gr-1<sup>bright</sup> bone marrow cells, as well as some F4/80 positive cells. This staining with PAJ-17R is not detected in IL-17RA knock-out mice.

## **Applications Reported**

This PAJ-17R antibody has been reported for use in flow cytometric analysis.

#### **Applications Tested**

This PAJ-17R antibody has been tested by flow cytometric analysis of mouse bone marrow cells. This can be used at less than or equal to 0.25  $\mu$ g per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

#### References

Toy D, Kugler D, Wolfson M, Vanden Bos T, Gurgel J, Derry J, Tocker J, Peschon J. Interleukin 17 signals through a



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Tan W, Huang W, Zhong Q, Schwarzenberger P. IL-17 receptor knockout mice have enhanced myelotoxicity and impaired hemopoietic recovery following gamma irradiation. J Immunol. 2006 May 15;176(10):6186-93.

### **Related Products**

12-5931 Anti-Mouse Ly-6G (Gr-1) PE (RB6-8C5) 17-4321 Rat IgG2a K Isotype Control APC (eBR2a)