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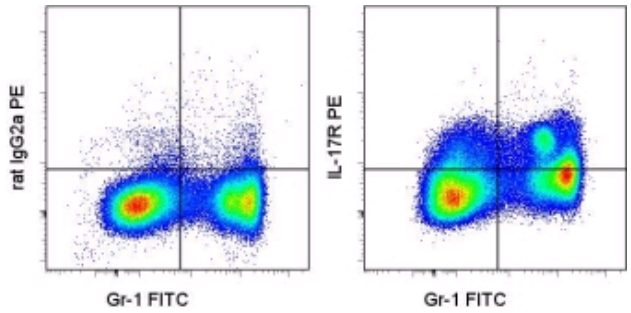
Anti-Mouse CD217 (IL-17 Receptor A) PE

Catalog Number: 12-7182
Also Known As:IL-17 alpha receptor, IL-17R, IL-17RA
RUO: For Research Use Only



Staining of C57BL/6 bone marrow cells with Anti-Mouse Ly-6G (Gr-1) FITC (cat. 11-5931) and 0.25 µg of Rat IgG2a κ Isotype Control PE (cat. 12-4321) (left) or 0.25 µg of Anti-Mouse IL-17 Receptor PE (right). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD217 (IL-17 Receptor A) PE
REF Catalog Number: 12-7182
Clone: PAJ-17R
Concentration: 0.2 mg/ml
Host/Isotype: Rat IgG2a

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

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 NFκB 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^{dim} population and many of the Gr-1^{bright} 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 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 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 heteromeric receptor complex. J Immunol. 2006 Jul 1;177(1):36-9.

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

12-4321 Rat IgG2a K Isotype Control PE

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com