Mouse IL-17 RA/IL-17 R Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF448

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-17 RA/IL-17 R in direct ELISAs and Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human IL-17 RA/IL-17 R is observed and less than 1% cross-reactivity with recombinant mouse (rm) IL-17 RC and rmIL-17 RD is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant mouse IL-17 RA/IL-17 R Extracellular domain
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

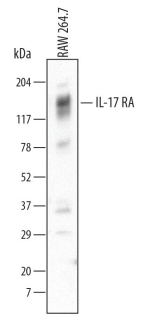
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Flow Cytometry	2.5 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

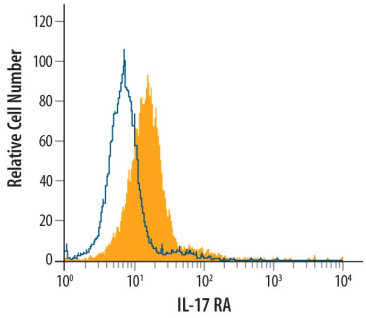
DATA

Western Blot



Detection of Mouse IL-17 RA/IL-17 R by Western Blot.
Western blot shows lysates of RAW 264.7 mouse monocyte/macrophage cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Mouse IL-17 RA/IL-17 R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF448) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for IL-17 RA/IL-17 R at approximately 150 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Flow Cytometry



Detection of IL-17 RA/IL-17 R in RAW 264.7 Mouse Cell Line by Flow Cytometry.
RAW 264.7 mouse monocyte/macrophage cell line was stained with Goat Anti-Mouse IL-17 RA/IL-17 R Antigen Affinity-purified Polyclonal Antibody (Catalog # AF448, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Phycoerythrin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0107).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

IL-17 R, also known as IL-17 RA, is a 120 kDa type I transmembrane glycoprotein protein that plays a central role in inflammatory responses (1-3). Mature mouse IL-17 R consists of a 291 amino acid (aa) extracellular domain, a 21 aa transmembrane segment, and a 521 aa cytoplasmic domain (4). The cytoplasmic domain contains a region homologous to the TIR domain of the TLR/IL-1 R family (5). Mouse IL-17 R shares 84% and 72% aa sequence identity with rat and human IL-17 R, respectively. Within the extracellular domain, it shares 18-25% sequence identity with mouse IL-17 RB, C, D, and E. While the expression of IL-17 is restricted to activated T cells, IL-17 R exhibits a broad tissue distribution (4). Even in the absence of ligand, IL-17 R exists on the cell surface as a multimer (6). IL-17 R can bind IL-17 but must associate with IL-17 RC to transduce signals (7, 8). Interestingly, human IL-17 R does not appear to form productive complexes with mouse IL-17 RC (8). The IL-17 R can also signal in response to IL-17F (9). IL-17 R ligation promotes T cell activation and the production of IL-6, G-CSF, SCF, and multiple pro-inflammatory chemokines (4, 7, 9, 10). IL-17A and IL-17F synergize with TNF-α in the induction of CXCL1, G-CSF, and IL-6 (9, 11). This effect requires the presence of both TNF RI and TNF RII (9). IL-17 interactions with IL-17 R also inhibit the TNF-α induced upregulation of fibroblast CCL5 and VCAM-1 (11). CCL5 and VCAM-1 induced effects are differentially sensitive to blockade with IL-17 R specific antibodies, suggesting that IL-17 R triggers divergent intracellular signals (11). *In vivo*, IL-17 R activity is important for increased generation of neutrophils and their recruitment to sites of inflammation (10, 12, 13). IL-17 R is required for host defense against microbial infection and for the progression of arthritis from inflammation to destructive joint erosion (10, 13).

References:

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