

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 (r
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IL-17 RA/IL-17 R Extracellular domain
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.