Mouse IL-17 RA/IL-17 R Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: BAF448

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-17 RA/IL-17 R in Western blots.
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 BSA as a carrier protein. See Certificate of Analysis for details.

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	0.1 µg/mL	Recombinant Mouse IL-17 RA/IL-17 R Fc Chimera (Catalog # 4481-MR)

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.
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.

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:

1. Iwakura, Y. and H. Ishigame (2006) J. Clin. Invest. **116**:1218.
2. Moseley, T.A. *et al.* (2003) Cytokine Growth Factor Rev. **14**:155.
3. Kawaguchi, M. *et al.* (2004) J. Allergy Clin. Immunol. **114**:1265.
4. Yao, Z. *et al.* (1995) Immunity **3**:811.
5. Novatchkova, M. *et al.* (2003) Trends Biochem. Sci. **28**:226.
6. Kramer, J.M. *et al.* (2006) J. Immunol. **176**:711.
7. Hymowitz, S.G. *et al.* (2001) EMBO J. **20**:5332.
8. Toy, D. *et al.* (2006) J. Immunol. **177**:36.
9. McAllister, F. *et al.* (2005) J. Immunol. **175**:404.
10. Ye, P. *et al.* (2001) J. Exp. Med. **194**:519.
11. Schnyder, B. *et al.* (2005) Cytokine **31**:191.
12. Tan, W. *et al.* (2006) J. Immunol. **176**:6186.
13. Lubberts, E. *et al.* (2005) J. Immunol. **175**:3360.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449