

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse and rat IL-17 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 10% cross-reactivity with recombinant human IL-17A and recombinant mouse (rm) IL-17F is observed and less than 1% cross-reactivity with rmlL-17B, rmlL-17C, rmlL-17D, and rmlL-17E is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse IL-17 Thr22-Ala158 Accession # Q62386
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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	0.1 µg/mL	Recombinant Mouse IL-17 (Catalog # 421-ML)
Intracellular Staining by 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.	
Neutralization	Measured by its ability to neutralize IL-17-induced IL-6 secretion in the NIH-3T3 mouse embryonic fibroblast cell line. Yao, Z. <i>et al.</i> (1995) <i>Immunity</i> 3:811. The Neutralization Dose (ND ₅₀) is typically 0.05-0.25 µg/mL in the presence of 10 ng/mL Recombinant Mouse IL-17.	

DATA

Intracellular Staining by Flow Cytometry

Detection of IL-17 in EL-4 Mouse Cell Line by Flow Cytometry. EL-4 mouse lymphoblast cell line was treated for 16 hours with 50 ng/mL PMA then stained with Goat Anti-Mouse IL-17 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-421-NA, filled histogram) or isotype control antibody (Catalog # AB-108-C, open histogram), followed by Phycoerythrin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0107). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

Neutralization

IL-6 Secretion Induced by IL-17 and Neutralization by Mouse IL-17 Antibody. Recombinant Mouse IL-17 (Catalog # 421-ML) stimulates IL-6 secretion in the NIH-3T3 mouse embryonic fibroblast cell line in a dose-dependent manner (orange line), as measured by the Mouse IL-6 Quantikine ELISA Kit (Catalog # M6000B). IL-6 secretion elicited by Recombinant Mouse IL-17 (10 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse IL-17 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-421-NA). The ND₅₀ is typically 0.05-0.25 µg/mL.

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. <ul style="list-style-type: none"> • 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

Interleukin 17 (also known as CTLA-8) is a T cell-expressed pleiotropic cytokine that exhibits a high degree of homology to a protein encoded by the ORF13 gene of herpesvirus Saimiri. cDNA clones encoding IL-17 have been isolated from activated rat, mouse, and human T cells. Mouse IL-17 cDNA encodes a 158 amino acid (aa) residue precursor protein with a 21 amino acid residue signal peptide that is cleaved to yield the 137 aa residue mature IL-17. Both recombinant and natural IL-17 have been shown to exist as disulfide linked homodimers. At the amino acid level, mIL-17 shows 57% and 87% sequence identity with herpesvirus and rat IL-17, respectively. An IL-17 specific mouse cell surface receptor (IL-17 R) has been cloned. While the expression of IL-17 mRNA is restricted to activated alpha beta TCR⁺CD4⁺CD8⁻T cells, the expression of mIL-17 R mRNA has been detected in virtually all cells and tissues tested. IL-17 exhibits multiple biological activities on a variety of cells including: the induction of IL-6 and IL-8 production in fibroblasts; the enhancement of surface expression of ICAM-1 in fibroblasts; activation of NF-κB and costimulation of T cell proliferation.

References:

1. Kennedy, J. *et al.* (1996) J. Interferon Cytokine Res. **16**:611.
2. Yao, Z. *et al.* (1995) J. Immunol. **155**:5483.
3. Yao, Z. *et al.* (1995) Immunity **3**:811.
4. Rouvier, E. *et al.* (1993) J. Immunol. **150**:5445.