Mouse IL-17/IL-17A Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-421-NA

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 rmIL-17B, rmIL-17C, rmIL-17D, and rmIL-17E is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-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.

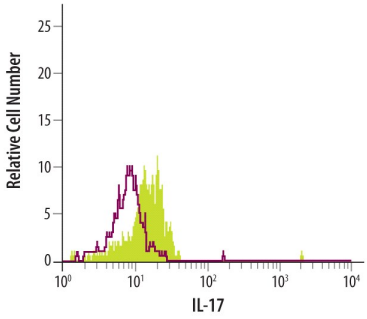
APPLICATIONS

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
Neutralization	Measured by its ability to neutralize IL-17-induced IL-6 secretion in the NIH-3T3 mouse embryonic fibroblast cell line. Yao, Z. *et al.* (1995) Immunity **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.	

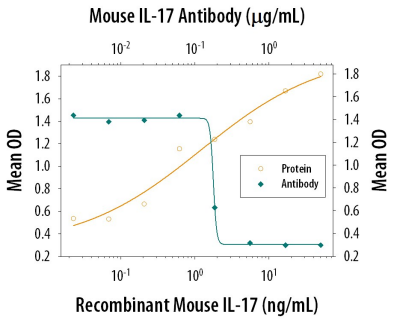
DATA

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 Anti-body (Catalog # AF-421-NA). The ND_{50} 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.
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

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.