Human IL-17/IL-17A Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-317-NA

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-17 in direct ELISAs and Western blots. In direct ELISAs, approximately 60% cross-reactivity with recombinant canine IL-17 is observed, approximately 10% cross-reactivity with recombinant human (rh) IL-17F and with recombinant mouse IL-17 is observed, and less than 1% cross-reactivity with rhIL-17B, rhIL-17C, rhIL-17D, and rhIL-17E is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human IL-17 Ile20-Ala155 Accession # Q16552
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 as a 0.2 µm filtered solution in PBS.

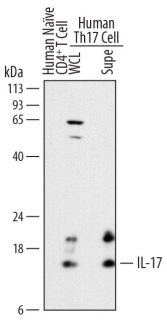
APPLICATIONS

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
Immunocytochemistry	5-15 µg/mL	Immersion fixed human peripheral blood mononuclear cells treated with PHA
Immunohistochemistry	1-15 µg/mL	See Below
Immunoprecipitation	3 µg/100 µg cell lysate	See Below
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 NIH/3T3 mouse embryonic fibroblasts. Yao, Z. *et al.* (1995) Immunity **3**:811. The Neutralization Dose (ND_{50}) is typically 0.02-0.12 µg/mL in the presence of 15 ng/mL Recombinant Human IL−17.	

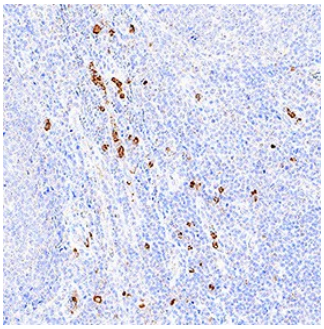
DATA

Western Blot



Detection of Human IL-17 by Western Blot. Western blot shows lysates of human primary naïve CD4+ T cells, along with whole cell lysates (WCL) and conditioned-media supernatant (Supe) of human primary differentiated Th17 cells. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human IL-17 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-317-NA) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for IL-17 at approximately 15 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



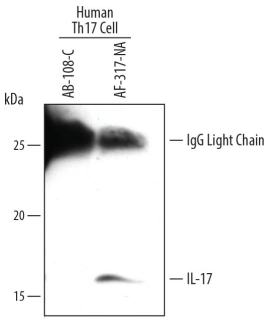
IL-17/IL-17A in Human Tonsil. IL-17/IL-17A was detected in immersion fixed paraffin-embedded sections of human tonsil using Goat Anti-Human IL-17/IL-17A Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-317-NA) at 1 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to lymphocytes. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

Human IL-17/IL-17A Antibody

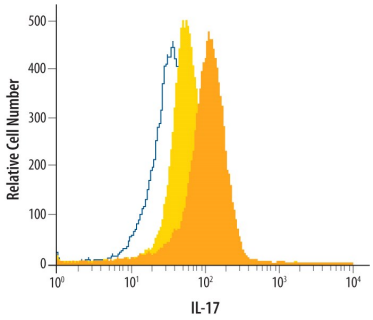
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-317-NA

Immunoprecipitation



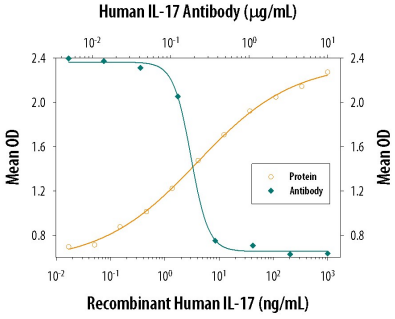
Immunoprecipitation of Human IL-17. Human IL-17 was immunoprecipitated from 100 µg of human primary differentiated Th17 cell lysate following incubation with 3 µg Goat Anti-Human IL-17 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-317-NA) or control antibody (Catalog # AB-108-C) overnight at 4 °C. IL-17-antibody complexes were absorbed using Protein G Sepharose. Immunoprecipitated IL-17 was detected by Western blot using 1 µg/mL Goat Anti-Human IL-17 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-317-NA). View our recommended buffer recipes for immunoprecipitation.

Intracellular Staining by Flow Cytometry



Detection of IL-17 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells were unstimulated (light orange filled histogram) or treated with 50 ng/mL PMA and 250 ng/mL Ca^{2+} ionomycin for 16 hours, then stained with Goat Anti-Human IL-17 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-317-NA, dark orange filled histogram) or isotype control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

Neutralization



IL-6 Secretion Induced by IL-17 and Neutralization by Human IL-17 Antibody. Recombinant Human IL-17 (Catalog # 317-ILB) stimulates IL-6 secretion in NIH/3T3 mouse embryonic fibroblasts 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 Human IL-17 (15 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human IL-17 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-317-NA). The ND_{50} is typically 0.02-0.12 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.** ● 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. Human IL-17 cDNA encodes a 155 amino acid (aa) residue precursor protein with a 19 amino acid residue signal peptide that is cleaved to yield the 136 aa residue mature IL-17 containing one potential N-linked glycosylation site. Both recombinant and natural IL-17 have been shown to exist as disulfide linked homodimers. At the amino acid level, human IL-17 shows 72% and 63% sequence identity with herpesvirus and rat IL-17, respectively. An IL-17 specific mouse cell surface receptor (IL-17 R) has recently been cloned. While the expression of IL-17 mRNA is restricted to activated 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.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956