

IL-17A (D1X7L) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, FC-FP	M	Endogenous	17, 14	Rabbit IgG	#Q62386	16171

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:200
1:400 - 1:1600

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #90428.

Specificity/Sensitivity

IL-17A (D1X7L) Rabbit mAb recognizes endogenous levels of total mouse IL-17A protein.

Species predicted to react based on 100% sequence homology

Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val49 of mouse IL-17A protein.

Background

The IL-17 family of cytokines consists of IL-17A-F, and their receptors include IL-17RA-RE (1). IL-17 cytokines are produced by a variety of cell types including the Th17 subset of CD4+ T cells, as well as subsets of γδ T cells, NK cells, and NKT cells (2). IL-17A and IL-17F, the most well-studied of the IL-17 cytokines, contribute to fungal and bacterial immunity by inducing expression of proinflammatory cytokines, chemokines, and antimicrobial peptides (2). In addition, IL-17A contributes to the pathogenesis of several autoimmune diseases (3). IL-17E promotes Th2 cell responses (4). The roles of IL-17B, IL-17C, and IL-17D are less clear, however these family members also appear to have the capacity to induce proinflammatory cytokines (1,5,6). IL-17 receptors have an extracellular domain, a transmembrane domain, and a SEFIR domain. They are believed to signal as homodimers, heterodimers, or multimers through their SEFIR domain by recruiting the SEFIR domain-containing adaptor Act1 (7). Unlike most cytokines that signal through Jak/STAT pathways, IL-17 signaling results in NF-κB activation (8).

IL-17A is a cysteine-linked, homodimeric, pro-inflammatory cytokine produced by Th17 cells, a distinct CD4+ T cell lineage (9,10). IL-17A stimulates the production of the pro-inflammatory cytokines IL-1β, TNFα, and IL-6. IL-17A also induces production of the neutrophil chemoattractants IL-8, CXCL1, and CXCL6 thereby bridging adaptive and innate immunity (9,10). IL-17A is intimately involved in mucosal immunity against bacterial infections (9,11) and has a putative role in some autoimmune disorders (9,12). IL-17A effects appear to be exerted primarily through binding to one of the IL-17 receptor subunits, IL-17RA (13). IL-17 binding induces production of cytokines, chemokines, and other proteins through activation of the Erk1/2 MAP kinase, PI3K/Akt, p38, and NF-κB pathways (11,12,14). Phosphorylation of some Jaks and Stats has been observed.

Background References

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Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	W: Western Blotting IP: Immunoprecipitation FC-FP: Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	M: Mouse
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