Revision 4

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# IL-17A (D1X7L) Rabbit mAb (PE Conjugate)

Cell Signaling TECHNOLOGY®

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|
| FC-FP | M | Endogenous | Rabbit IgG | #Q62386 | 16171 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Flow Cytometry (Fixed/Permeabilized) | 1:50 |

## Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

## Specificity / Sensitivity

IL-17A (D1X7L) Rabbit mAb (PE Conjugate) 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.

## Product Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in mouse cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated IL-17A (D1X7L) Rabbit mAb #13838.

## 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).

## Background References

1. Gaffen, S.L. (2009) *Nat Rev Immunol* 9, 556-67.
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3. Hu, Y. et al. (2011) *Ann N Y Acad Sci* 1217, 60-76.
4. Fort, M.M. et al. (2001) *Immunity* 15, 985-95.
5. Yamaguchi, Y. et al. (2007) *J Immunol* 179, 7128-36.
6. Li, H. et al. (2000) *Proc Natl Acad Sci U S A* 97, 773-8.
7. Chang, S.H. et al. (2006) *J Biol Chem* 281, 35603-7.
8. Shalom-Barak, T. et al. (1998) *J Biol Chem* 273, 27467-73.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Applications Key

**FC-FP:** Flow Cytometry (Fixed/Permeabilized)

## Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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