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## Mouse Interleukin-17A (mIL-17A)



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

**MW (kDa):**  
15-22

**UniProt ID:**  
#Q62386

**Entrez-Gene Id:**  
16171

### Background

IL-17A is a cystine-linked homodimeric pro-inflammatory cytokine produced by Th<sub>17</sub> cells, a distinct CD4<sup>+</sup> T cell lineage (1,2). IL-17A stimulates the production of the pro-inflammatory cytokines IL-1 $\beta$ , TNF $\alpha$ , and IL-6. IL-17A also induces production of the neutrophil chemoattractants IL-8, CXCL1, and CXCL6 thereby bridging adaptive and innate immunity (1,2). IL-17A is intimately involved in mucosal immunity against bacterial infections (1,3) and has a putative role in some autoimmune disorders (1,4). IL-17A effects appear to be exerted primarily through binding to the IL-17RA (5). IL-17A binding induces production of cytokines, chemokines and other proteins through activation of the Erk1/2 MAP kinase, PI3K/Akt, p38, and NF- $\kappa$ B pathways (3,4,6). Phosphorylation of some Jaks and Stats has been observed.

### Endotoxin

Less than 0.01 ng endotoxin/1 $\mu$ g mIL-17A.

### Purity

>98% as determined by SDS-PAGE of 6  $\mu$ g reduced (+) and non-reduced (-) recombinant mIL-17A. All lots are greater than 98% pure.

### Source / Purification

Recombinant mouse IL-17A (mIL-17A) Thr22-Ala158 (Accession #NP\_034682) was expressed in human 293 cells at Cell Signaling Technology.

### Bioactivity

The bioactivity of recombinant mIL-17A was determined by its ability to induce mouse IL-6 production by 3T3 MEFs WT. The ED<sub>50</sub> of each lot is between 0.4-1.4 ng/ml.

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### Background References

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2. Liang, S.C. et al. (2006) *J Exp Med* 203, 2271-9.
3. Dubin, P.J. and Kolls, J.K. (2008) *Immunol Rev* 226, 160-71.
4. Zrioual, S. et al. (2009) *J Immunol* 182, 3112-20.
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6. Rahman, M.S. et al. (2006) *J Immunol* 177, 4064-71.

### 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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