

Store at  
-20°C

# Mouse IL-17A Recombinant Protein



#50944

25 µg

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orders@cellsignal.comEntrez-Gene ID #16171  
UniProt ID #Q62386

New 04/21

## For Research Use Only. Not For Use In Diagnostic Procedures.

**Background:** Interleukin-17A (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 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 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.

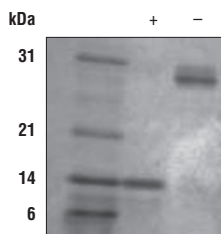
**Molecular Weight:** 30.2 kDa

**Endotoxin:** Endotoxin levels are  $\leq$  1 EU / 1 µg mL-17A.

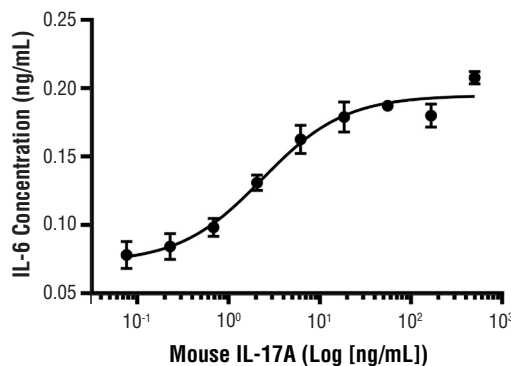
**Purity:**  $\geq$  95% purity was determined by SDS-PAGE.

**Source/Purification:** Recombinant mouse IL-17A was expressed in *E. coli* and is supplied in a lyophilized form.

**Bioactivity:** The bioactivity of recombinant mL-17A was determined by measuring the secretion of IL-6 by NIH/3T3 cells. The ED<sub>50</sub> of each lot is  $\leq$  5 ng/ml.



The purity of Mouse IL-17A Recombinant Protein was determined by SDS-PAGE of 1 µg reduced (+) and non-reduced (-) recombinant mL-17A and staining with Coomassie Blue. mL-17A is a homodimer with a predicted total molecular weight (MW) of 30.2 kDa with each subunit equaling 15.1 kDa.



Serial dilutions of Mouse IL-17A Recombinant Protein were added to NIH/3T3 cells. Secretion of IL-6 was measured and the linear portion of the curve was used to calculate the ED<sub>50</sub>.

**Storage:** Mouse IL-17A Recombinant Protein is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/ml which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

### Background References:

- (1) Kolls, J.K. and Lindén, A. (2004) *Immunity* 21, 467-76.
- (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.
- (5) Wright, J.F. et al. (2008) *J Immunol* 181, 2799-805.
- (6) Rahman, M.S. et al. (2006) *J Immunol* 177, 4064-71.

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