

# Human Interleukin-17F (hIL-17F)



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**MW (kDa):**  
15

**UniProt ID:**  
#Q96PD4

**Entrez-Gene Id:**  
112744

## Background

IL-17F is a cystine-linked homodimeric pro-inflammatory cytokine produced by TH17 cells, a distinct CD4+ T cell subset (1). IL-17F induces the production of pro-inflammatory cytokines, antimicrobial peptides, and neutrophil chemoattractants such as IL-6,  $\beta$ -defensin, IL-8, CXCL1, and CXCL6 (1,2). As a result, IL-17F may provide an important link between adaptive and the innate immunity. IL-17F binds with high affinity to IL-17RC, expressed primarily in non-hematopoietic tissues, and with lesser affinity to IL-17RA, which is expressed in hematopoietic tissues (3). IL-17F binding activates the ERK1/2 MAP kinase and NF- $\kappa$ B pathways (1,4). IL-17F appears to be involved in mucosal immunity against bacterial infections and possibly some autoimmune conditions (1,5,6).

## Endotoxin

Less than 0.01 ng endotoxin/1  $\mu$ g hIL-17F.

## Purity

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

## Source / Purification

Recombinant human IL-17F (hIL-17F) Arg31-Gln163 (Accession #NP\_443104) was expressed in human 293 cells at Cell Signaling Technology.

## Bioactivity

The bioactivity of recombinant hIL-17F 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 30-80 ng/ml.

## 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. Kuestner, R.E. et al. (2007) *J Immunol* 179, 5462-73.
4. Kawaguchi, M. et al. (2002) *J Biol Chem* 277, 15229-32.
5. Zrioual, S. et al. (2009) *J Immunol* 182, 3112-20.
6. Ishigame, H. et al. (2009) *Immunity* 30, 108-19.

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