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Human Interleukin-17A (hIL-17A)

10 µg

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

MW (kDa):	UniProt ID:	Entrez-Gene Id:
21	#Q16552	3605

Background

IL-17A is a cystine-linked homodimeric pro-inflammatory cytokine produced by Th₁₇ cells, a distinct CD4+ T cell lineage (1,2). IL-17A stimulates the production of the pro-inflammatory cytokines IL-1β, TNF-α, 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-κB pathways (3,4, 6). Phosphorylation of some Jaks and Stats has been observed.

Endotoxin

Less than 0.01 ng endotoxin/1 µg hIL-17A.

Purity

>97% as determined by SDS-PAGE of 6 µg reduced (+) and non-reduced (-) recombinant hIL-17A. All lots are greater than 97% pure

Source / Purification

Recombinant human IL-17A (hIL-17A) Ile20-Ala155 (Accession #NP_002181) was expressed in human 293 cells at Cell Signaling Technology.

Bioactivity

The bioactivity of recombinant hIL-17A was determined by its ability to induce IL-6 production by primary human fibroblasts. The ED₅₀ of each lot is between 1.5 - 3.5 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. 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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