

**DESCRIPTION**

**Source** Human embryonic kidney cell, HEK293-derived human IL-17/IL-17A protein  
Gly24-Ala155  
Accession # Q16552

**N-terminal Sequence Analysis** Gly24

**Structure / Form** Disulfide-linked homodimer

**Predicted Molecular Mass** 15.1 kDa (monomer)

**SPECIFICATIONS**

**SDS-PAGE** 15-23 kDa, reducing conditions  
28-38 kDa, non-reducing conditions

**Activity** Measured by its ability to induce CXCL1/GRO $\alpha$  secretion in HT-29 human colon adenocarcinoma cells.  
The ED<sub>50</sub> for this effect is 0.12-1.2 ng/mL.

Measured by its ability to induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells. Yao, Z. *et al.* (1995) *Immunity* 3:811.  
The ED<sub>50</sub> for this effect is 1.5-7.5 ng/mL.

**Endotoxin Level** <0.01 EU per 1  $\mu$ g of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Lyophilized from a 0.2  $\mu$ m filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 100  $\mu$ g/mL in PBS containing at least 0.1% human or bovine serum albumin.

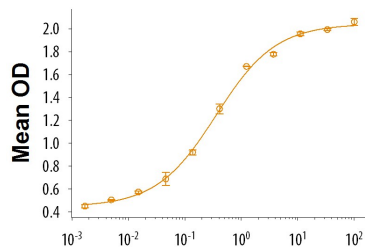
**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**DATA**

**Bioactivity**



Recombinant Human IL-17 (Catalog # 7955-IL) induces CXCL1/GRO $\alpha$  secretion in HT-29 human colon adenocarcinoma cells. The ED<sub>50</sub> for this effect is 0.12-1.2 ng/mL.

**Recombinant Human IL-17A (ng/mL)**

**BACKGROUND**

Interleukin-17A (IL-17A), also known as CTLA-8, is a 15-20 kDa glycosylated cytokine that plays an important role in anti-microbial and chronic inflammation. The six IL-17 cytokines (IL-17A-F) are encoded by separate genes but adopt a conserved cystine knot fold (1, 2). Mature human IL-17A shares 60% amino acid sequence identity with mouse and rat IL-17A (3, 4). IL-17A is secreted by Th17 cells,  $\gamma\delta$  T cells, iNKT cells, NK cells, LTi cells, neutrophils, and intestinal Paneth cells (2). It forms disulfide-linked homodimers as well as disulfide-linked heterodimers with IL-17F (5, 6). IL-17A exerts its effects through the transmembrane IL-17 RA in complex with IL-17 RC or IL-17 RD (7, 8). Both IL-17 RA and IL-17 RC are required for responsiveness to heterodimeric IL-17A/F (7). IL-17A promotes protective mucosal and epidermal inflammation in response to microbial infection (9-12). It induces chemokine production, neutrophil influx, and the production of antibacterial peptides (9-11). IL-17A/F likewise induces neutrophil migration, but IL-17F does not (11). IL-17A additionally enhances the production of inflammatory mediators by rheumatoid synovial fibroblasts and contributes to TNF- $\alpha$  induced shock (4, 13). In contrast, it can protect against the progression of colitis by limiting chronic inflammation (12). IL-17A encourages the formation of autoreactive germinal centers and exacerbates the onset and progression of experimental models of autoimmunity (14, 15). IL-17A has been shown to exert either tumorigenic or anti-tumor effects (16, 17).

**References:**

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