**DESCRIPTION**

**Source**  
E. coli-derived human IL-17/IL-17A protein  
Ile20-Ala155, with an N-terminal Met  
Accession # Q16552

**N-terminal Sequence Analysis**  
Met

**Structure / Form**  
Disulfide-linked homodimer

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

**SPECIFICATIONS**

**Activity**  
Measured by its ability to induce CXCL1/GROα secretion in HT-29 human colon adenocarcinoma cells.  
The ED₅₀ for this effect is 0.4-4 ng/mL.

The ED₅₀ for this effect is 1.5-7.5 ng/mL.

**Endotoxin Level**  
<0.10 EU per 1 μg of the protein by the LAL method.

**Purity**  
>97%, by SDS-PAGE under reducing conditions and visualized by silver stain.

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in HCl. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution**  
Reconstitute at 100 μg/mL in 4 mM HCl.

**Shipping**  
The product is shipped with polar packs. 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 induces CXCL1/GROα secretion in HT-29 human colon adenocarcinoma cells.  
The ED₅₀ for this effect is 0.4-4 ng/mL.

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

![Graph showing bioactivity](image_url)
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, γδ 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-17RA in complex with IL-17RC or IL-17RD (7, 8). Both IL-17RA and IL-17RC 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-α 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: