**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/GROα secretion in HT-29 human colon adenocarcinoma cells.
The ED₅₀ for this effect is 0.12-1.2 ng/mL.

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

**Endotoxin Level**
<0.01 EU per 1 μg 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 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution**
Reconstitute at 100 μg/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/GROα secretion in HT-29 human colon adenocarcinoma cells.
The ED₅₀ for this effect is 0.12-1.2 ng/mL.
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-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-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: