

**DESCRIPTION**

<b>Source</b>	Human embryonic kidney cell, HEK293-derived human IL-17/IL-17A protein Gly24-Ala155 Accession # Q16552
<b>N-terminal Sequence Analysis</b>	Gly24
<b>Structure / Form</b>	Disulfide-linked homodimer
<b>Predicted Molecular Mass</b>	15.1 kDa (monomer)

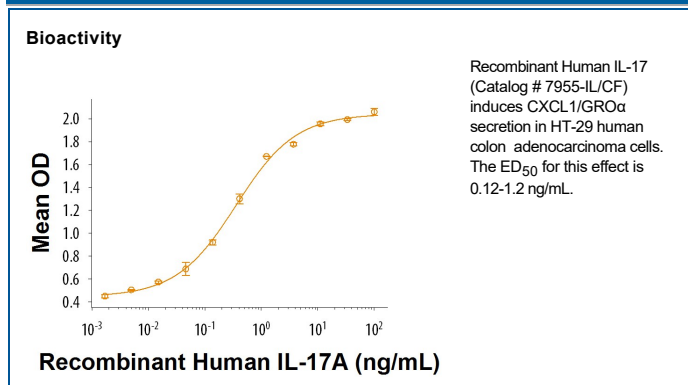
**SPECIFICATIONS**

<b>SDS-PAGE</b>	15-23 kDa, reducing conditions 28-38 kDa, non-reducing conditions
<b>Activity</b>	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. <i>et al.</i> (1995) <i>Immunity</i> 3:811. The ED <sub>50</sub> for this effect is 1.5-7.5 ng/mL.
<b>Endotoxin Level</b>	<0.01 EU per 1 $\mu$ g of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 100 $\mu$ g/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**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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