


## Human IL-17A Protein

Cat #: PRP1226

Size: 5 µg/20 µg/100 µg/1 mg

### Product Information

|   |   |            |   |
|---|---|------------|---|
|   | <b>Product Name:</b> Human IL-17A Protein                       |            |   |
| <b>REF</b>  | <b>Catalog Number:</b> PRP1226                                  | <b>LOT</b> | <b>Lot Number:</b> Refer to product label |
|   | <b>Purity:</b> > 98 % as determined by SDS-PAGE                 |            |   |
|  | <b>Storage:</b> Store at -20°C                                  |            | <b>Preparation method:</b> E.coli         |
|   | <b>Shipping:</b> The product is shipped at ambient temperature. |            |   |

**Background:** Interleukin-17A (IL-17A), also known as CTLA-8, belongs to the IL-17 cytokine family. IL-17A is expressed in memory Th17 cells and is a product of memory CD4+T cells. In addition to Th17 cells, IL-17A can also be produced by various immune cells, including CD8+T cells, natural killer T (NKT) cells, monocytes, and neutrophils. IL-17A plays a crucial role in the host's defense mechanisms against many bacterial and fungal pathogens, as well as in allergic and autoimmune responses. IL-17A plays a role in viral infection by promoting neutrophil inflammation. IL-17A is a homodimeric cytokine with similar biological activity to IL-17F. IL-17A and IL-17RA have high affinity binding, and IL-17RA is essential for the biological activity of IL-17A. IL-17A cannot bind to T cells, B cells, and myeloid cells lacking IL-17RA. IL-17A is associated with various autoimmune diseases, such as rheumatoid arthritis, multiple sclerosis, inflammatory bowel disease, asthma, and psoriasis. IL-17A also plays a pathogenic role in cancer. During tumor development, IL-17A recruits bone marrow-derived suppressor cells (MDSCs) to suppress anti-tumor immunity. IL-17A also promotes tumor growth in vivo by inducing IL-6.

**Sequence:** Amino acid sequence derived from Human IL-17A (Ile20-Ala155) (Q16552) was expressed.

**Protein length:** The recombinant Human IL-17A consists of 136 amino acids and predicts a molecular mass of 15.7 kDa.

**Biological Activity:** Measured by its ability to induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells. The ED50 for this effect is 7.582 ng/mL, corresponding to a specific activity is  $1.32 \times 10^5$  U/mg.

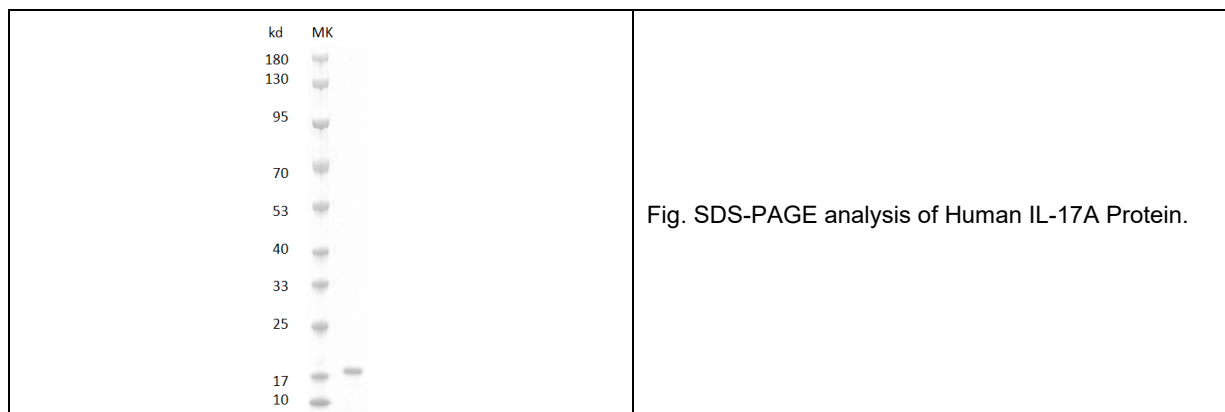
**Endotoxin:** <0.1 EU per µg of the protein by the LAL method.

**Formulation:** Lyophilized from 20 mM Tris-HCl, 50 mM NaCl, pH8.0.

**Storage Instructions:** Lyophilized protein product should be stored desiccated below -20°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days. For long term storage it is recommended to add a carrier protein (0.1% HSA or

BSA). Please prevent freeze-thaw cycles.

**Usage notes:** Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized protein using the buffer we provided not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.



**Note:** The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.