

## IL-17A Protein, Human (HEK293, His)

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| <b>Cat. No.:</b>         | HY-P70527   |
| <b>Synonyms:</b>         | Interleukin-17A; IL-17; IL-17A; Cytotoxic T-Lymphocyte-Associated Antigen 8; CTLA-8; IL17A; CTLA8; IL17 |
| <b>Species:</b>          | Human   |
| <b>Source:</b>           | HEK293  |
| <b>Accession:</b>        | Q16552 (G24-A155)   |
| <b>Gene ID:</b>          | 3605  |
| <b>Molecular Weight:</b> | 15-24kDa  |

### PROPERTIES

|                                |   |
|--------------------------------|---|
| <b>AA Sequence</b>             | <p>G I T I P R N P G C      P N S E D K N F P R      T V M V N L N I H N      R N T N T N P K R S</p> <p>S D Y Y N R S T S P      W N L H R N E D P E      R Y P S V I W E A K      C R H L G C I N A D</p> <p>G N V D Y H M N S V      P I Q Q E I L V L R      R E P P H C P N S F      R L E K I L V S V G</p> <p>C T C V T P I V H H      V A</p> |
| <b>Biological Activity</b>     | Measured by its ability to induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells and the ED <sub>50</sub> for this effect is 1-10 ng/mL.  |
| <b>Appearance</b>              | Lyophilized powder  |
| <b>Formulation</b>             | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.  |
| <b>Endotoxin Level</b>         | <1 EU/µg, determined by LAL method.   |
| <b>Reconstitution</b>          | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).   |
| <b>Storage &amp; Stability</b> | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.  |
| <b>Shipping</b>                | Room temperature in continental US; may vary elsewhere.   |

### DESCRIPTION

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| <b>Background</b> | <p>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<sup>+</sup> T cells. IL-17A is also produced by a wide variety of immune cells, including CD8<sup>+</sup> T cells, γδT cells, natural killer T (NKT) cells, monocytes, and neutrophils<sup>[1][2][3]</sup>.</p> <p>The human IL-17A shares 63.23% amino acid sequence identity with mouse and 61.90% identity with rat.</p> <p>IL-17A plays a critical role in host defense mechanisms against many bacterial and fungal pathogens as well as allergic and</p> |
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autoimmune responses. IL-17A induces the production of antimicrobial peptides (defensins and S100 proteins), cytokines (IL-6, G-CSF, and GM-CSF), chemokines (CXCL1, CXCL5, IL-8, CCL2, and CCL7), and matrix metalloproteinases (MMP1, MMP3, and MMP13). IL-17A is detrimental in viral infection through promoting neutrophilic inflammation. IL-17A is a homodimeric cytokine and shares similar biological activities with IL-17F. IL-17A binds to IL-17RA with high affinity, and IL-17RA is required for the biological activity of IL-17A. In tumorigenesis, IL-17A recruits myeloid derived suppressor cells (MDSCs) to dampen anti-tumor immunity. IL-17A also enhances tumor growth in vivo through the induction of IL-6<sup>[1][2]</sup>. IL-17A can be used for the research of autoimmune diseases, infection and cancer<sup>[1][4]</sup>.

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## REFERENCES

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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