

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

Cat. No.:	HY-P78157
Synonyms:	CTLA-8; IL17; IL17A; IL-17CTLA-8; interleukin 17A
Species:	Human
Source:	HEK293
Accession:	Q16552 (G24-A155)
Gene ID:	3605
Molecular Weight:	16-30 kDa

### PROPERTIES

<b>Biological Activity</b>	Immobilized Biotinylated Human IL-17A, His Tag at 2 µg/mL (100 µl/well) on the streptavidin precoated plate (5 µg/ml). Dose response curve for Human IL-17R alpha, hFc Tag with the EC <sub>50</sub> of ≤27.0 ng/mL determined by ELISA.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
<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.
<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

#### 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<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>.

The human IL-17A shares 63.23% amino acid sequence identity with mouse and 61.90% identity with rat.

IL-17A plays a critical role in host defense mechanisms against many bacterial and fungal pathogens as well as allergic and 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>.

---

## REFERENCES

---

- [1]. Chen K, et al. Interleukin-17A (IL17A). *Gene*. 2017 May 30;614:8-14.
- [2]. Iwakura Y, et al. The roles of IL-17A in inflammatory immune responses and host defense against pathogens. *Immunol Rev*. 2008 Dec;226:57-79.
- [3]. Cua DJ, et al. Innate IL-17-producing cells: the sentinels of the immune system. *Nat Rev Immunol*. 2010 Jul;10(7):479-89.
- [4]. Wright JF, et al. The human IL-17F/IL-17A heterodimeric cytokine signals through the IL-17RA/IL-17RC receptor complex. *J Immunol*. 2008 Aug 15;181(4):2799-805.
- [5]. Kinoshita H, et al. Cytokine milieu modulates release of thymic stromal lymphopoietin from human keratinocytes stimulated with double-stranded RNA. *J Allergy Clin Immunol*. 2009 Jan;123(1):179-86.
- [6]. Hennes S, et al. IL-17A acts via p38 MAPK to increase stability of TNF-alpha-induced IL-8 mRNA in human ASM. *Am J Physiol Lung Cell Mol Physiol*. 2006 Jun;290(6):L1283-90.
- 

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA