

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

### General Information

Synonyms:	CTLA-8;IL17;ILA17;IL-17;IL-17A;CTLA8
Protein Construction:	A DNA sequence encoding the Human IL17A (Q16552) (Gly24-Ala155) was expressed with a N-terminal polyhistidine tagged AVI tag at the C-terminus. The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed.
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q16552
Molecular Weight:	18.31 kDa (predicted); 41.6 kDa?24.6 kDa?22.5 kDa?21.1 kDa?19.4 kDa and 17.4 kDa (reducing contition, due to glycosylation); 43.6 kDa (SEC-MALS)

### QC Testing

Biological Activity:	Immobilized IL-17RA Protein, Human, Recombinant (hFc) (Cat#TMPY-05430) at 2 µg/mL (100 µL/well) can bind IL-17A Protein, Human, Recombinant (Avi & His), Biotinylated (Cat#TMPY-07090) , the EC50 is 4-12 ng/mL.
Purity:	≥ 95% as determined by SDS-PAGE. ≥ 95% as determined by SEC-HPLC. ≥ 95% as determined by SEC-MALS(Routinely tested).
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from sterile PBS, pH 7.4. Please contact us for any concerns or special requirements. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

### Preparation and Storage

#### Reconstitution:

Please refer to the lot-specific COA.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

IL17, also known as IL17a, is a cytokine that belongs to the IL-17 family. Cytokines are proteinaceous signaling

compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation, and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. The IL-17 family of cytokines includes six members, IL-17/IL-17A, IL-17B, IL-17C, IL-17D, IL-17E/IL-25, and IL-17F, which are produced by multiple cell types. IL-17 regulates the activities of NF-kappaB and mitogen-activated protein kinases. This cytokine can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). High levels of IL-17 are associated with several chronic inflammatory diseases including rheumatoid arthritis, psoriasis, and multiple sclerosis. Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

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