Catalog # ILA-H5219



#### Synonym

IL-17A,Interleukin-17A,CTLA-8,IL-17

#### Source

Human IL17A, premium grade(ILA-H5219) is expressed from human 293 cells (HEK293). It contains AA Gly 24 - Ala 155 (Accession # <u>Q16552-1</u>). Predicted N-terminus: Gly 24

Human IL17A, premium grade (ILA-H5219), designed for preclinical stage, has the same activity and performance with GMP Human IL-17A, which enables a seamless transition from preclinical development to clinical phases. Premium Grade product offer a cost efficient alternative of GMP Grade products for the early development phase when safety of raw materials is not top priority. By using Premium Grade products in early development phase, you can transition easily into clinical and commercial phase without need to revalidate the raw materials and modify manufacturing process.

#### **Molecular Characterization**

IL-17A(Gly 24 - Ala 155) Q16552-1

This protein carries no "tag".

The protein has a calculated MW of 15.1 kDa. The protein migrates as 16 kDa, 17 kDa and 19 kDa under reducing (R) condition, and 27-34 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

#### Endotoxin

Less than 0.1 EU per  $\mu g$  by the LAL method.

## Sterility

Negative

## Mycoplasma

Negative.

### Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

#### Formulation

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

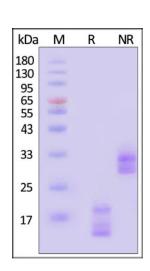
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

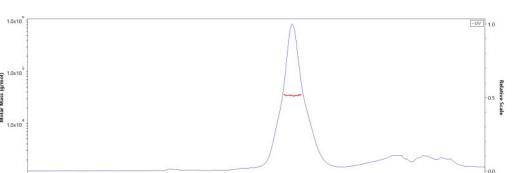
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.





# **SEC-MALS**



1000.000				
5.0	10.0	15.0	20.0	25.0
		time (min)		

Human IL17A, premium grade on SDS-PAGE under reducing (R) and nonreducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein</u> <u>Marker</u>). The purity of Human IL17A, premium grade (Cat. No. ILA-H5219) is more than 95% and the molecular weight of this protein is around 30-46 kDa verified by SEC-MALS. Report

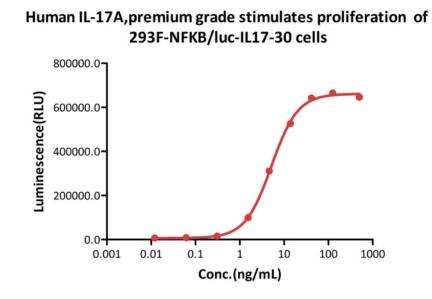




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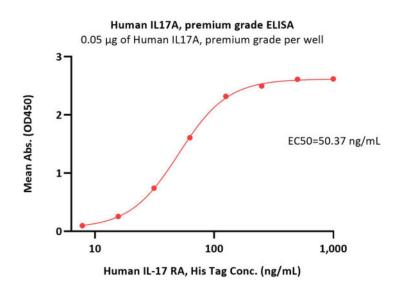


**Bioactivity-Bioactivity CELL BASE** 



Human IL-17A, premium grade (Cat. No. ILA-H5219) stimulates proliferation of 293F-NFKB/luc-IL17-30 cell line. The specific activity of Human IL-17A, premium grade is  $> 1.00 \times 10^{7}$  IU/mg, which is calibrated against human IL-17 WHO International Standard (NIBSC code: 01/420) (QC tested).

# **Bioactivity-ELISA**



Immobilized Human IL17A, premium grade (Cat. No. ILA-H5219) at 0.5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human IL-17 RA, His Tag (Cat. No. ILA-H5222) with a linear range of 8-125 ng/mL (QC tested).

# Background

Interleukin-17A (IL17A) is also known as cytotoxic T-lymphocyte-associated antigen 8 (CTLA8), which is a proinflammatory cytokine produced by activated T cells. IL17A can regulate the activities of NF-kappaB and mitogen-activated protein kinases. Also, IL17A can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). Furthermore, IL17A has been found both in glycosylated and nonglycosylated forms. High levels of IL-17 are associated with several chronic inflammatory diseases including rheumatoid arthritis, psoriasis and multiple sclerosis.

#### **Clinical and Translational Updates**



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