

**Synonym**

IL-2 &amp; TSG-6

**Source**

Human IL-2 (N108D, C145A) & TSG-6, His Tag(IL6-H52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 21 - Thr 153 & Gly 36 - Asn 129 (Accession # [P60568-1](#) (N108D, C145A) & [P98066-1](#) ).

Predicted N-terminus: Ala 21

**Molecular Characterization**

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 28.3 kDa. The protein migrates as 32-34 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Lyophilized from 0.22 µm 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.*

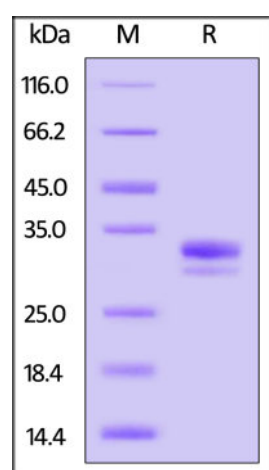
**Storage**

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

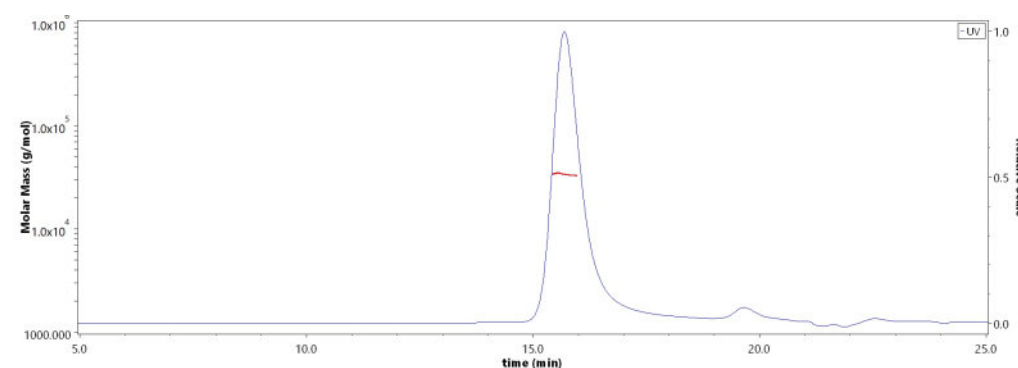
*Please avoid repeated freeze-thaw cycles.*

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.

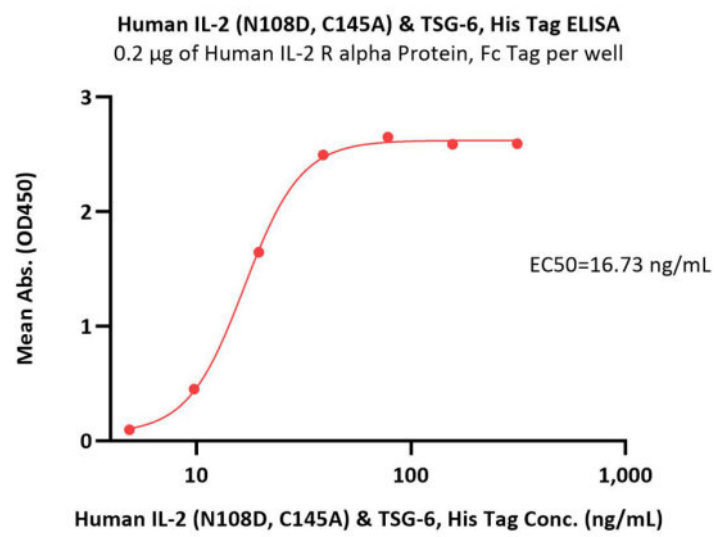
**SDS-PAGE**

Human IL-2 (N108D, C145A) & TSG-6, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA****SEC-MALS**

The purity of Human IL-2 (N108D, C145A) & TSG-6, His Tag (Cat. No. IL6-H52H3) is more than 90% and the molecular weight of this protein is around 28-38 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human IL-2 R alpha Protein, Fc Tag (Cat. No. ILA-H5251) at 2 µg/mL (100 µL/well) can bind Human IL-2 (N108D, C145A) & TSG-6, His Tag (Cat. No. IL6-H52H3) with a linear range of 5-40 ng/mL (QC tested).

## Background

Interleukin-2 (IL-2) is an interleukin, a type of cytokine immune system signaling molecule, which is a leukocytotropic hormone that is instrumental in the body's natural response to microbial infection and in discriminating between foreign (non-self) and self. IL-2 mediates its effects by binding to IL-2 receptors, which are expressed by lymphocytes, the cells that are responsible for immunity. Mature human IL-2 shares 56% and 66% aa sequence identity with mouse and rat IL-2, respectively. Human and mouse IL-2 exhibit crossspecies activity. The receptor for IL-2 consists of three subunits that are present on the cell surface in varying preformed complexes. IL-2 is also necessary during T cell development in the thymus for the maturation of a unique subset of T cells that are termed regulatory T cells (T-regs). After exiting from the thymus, T-Regs function to prevent other T cells from recognizing and reacting against "self antigens", which could result in "autoimmunity". T-Regs do so by preventing the responding cells from producing IL-2. Thus, IL-2 is required to discriminate between self and non-self, another one of the unique characteristics of the immune system.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.