

Synonym

Transforming growth factor-alpha

Source

Human TGF-alpha Protein, premium grade(TGA-H5119) is expressed from E. coli cells. It contains AA Val 40 - Ala 89 (Accession # [P01135-1](#)).

Predicted N-terminus: Met

*It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.*

Molecular Characterization

TGF-alpha(Val 40 - Ala 89)  
P01135-1

This protein carries no "tag".

The protein has a calculated MW of 5.7 kDa. The protein migrates as 8 kDa±3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-HPLC.

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

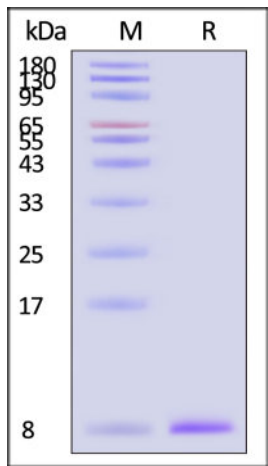
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

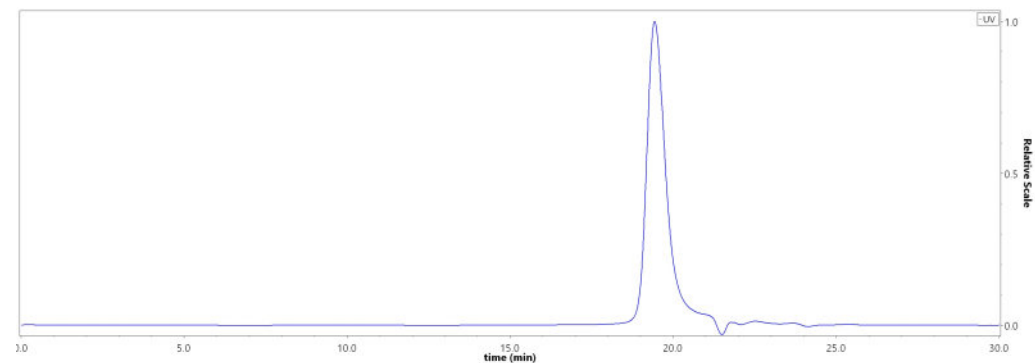
This product is stable after storage at:

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

SDS-PAGE



SEC-HPLC



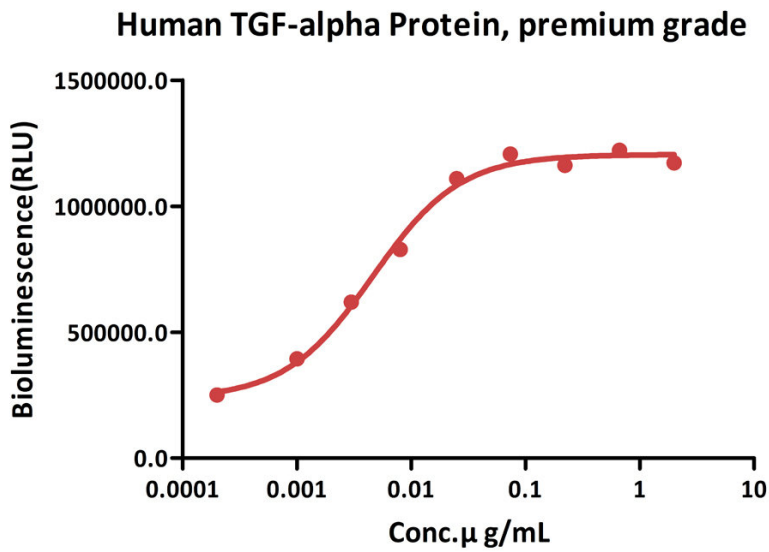
Discounts, Gifts,  
and more!



Human TGF- $\alpha$  Protein, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

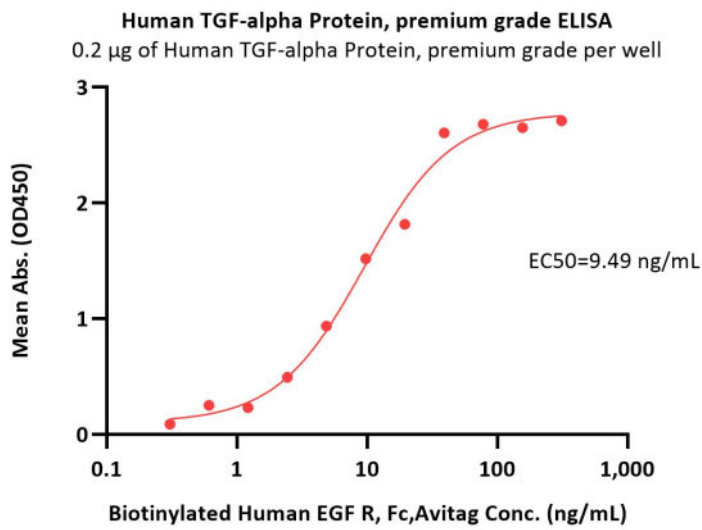
The purity of Human TGF- $\alpha$  Protein, premium grade (Cat. No. TGA-H5119) was greater than 95% as determined by SEC-HPLC.

Bioactivity-CELL BASE



Human TGF- $\alpha$  Protein, premium grade (Cat. No. TGA-H5119) induced Human EGF R (Luc) HEK293 Reporter Cell. The EC50 for this effect is 4.606 ng/mL (Routinely tested).

Bioactivity-ELISA



Immobilized Human TGF- $\alpha$  Protein, premium grade (Cat. No. TGA-H5119) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human EGF R, Fc, Avitag (Cat. No. EGR-H82F8) with a linear range of 0.3-39 ng/mL (QC tested).

Background

TGF- $\alpha$  is a normal physiological ligand for the EGF receptor. TGF- $\alpha$  and the EGF receptor are expressed in many developing and adult tissues, where TGF- $\alpha$  has been implicated in cell migration, growth, and differentiation.

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