

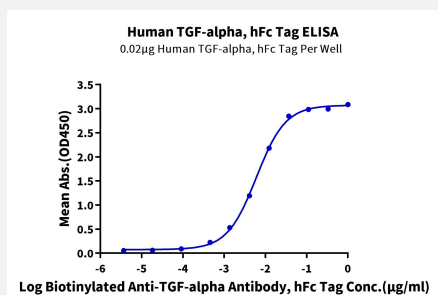
Bioactive

HuPro®

TGFA (Human) Recombinant Protein

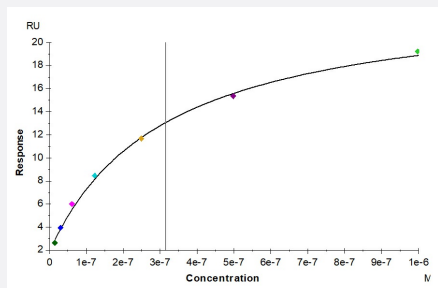
Catalog # P9882 Size 100 ug

Applications



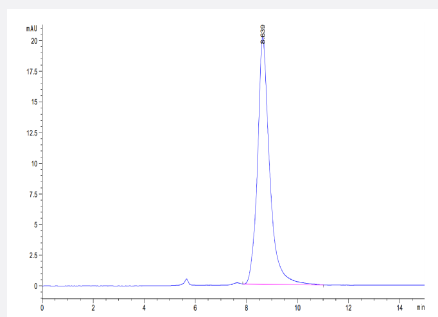
Enzyme-linked Immunoabsorbent Assay

Immobilized Human TGF-alpha, hFc Tag at 0.2 ug/mL (100 uL/well) on the plate. Dose response curve for Biotinylated Anti-TGF-alpha Antibody, hFc Tag with the EC50 of 6.0 ng/mL determined by ELISA (QC Test).



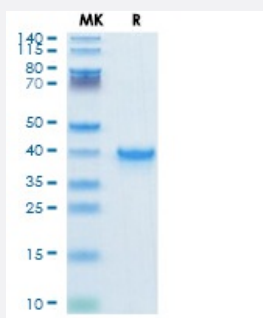
Surface Plasmon Resonance

Human EGFR, His Tag captured on CM5 Chip via anti-his antibody can bind Human TGF-alpha, hFc Tag with an affinity constant of 0.31 uM as determined in SPR assay (Biacore T200).



SEC-HPLC

The purity of Human TGF-alpha is greater than 95% as determined by SEC-HPLC.



Tris-Bis PAGE

Human TGF-alpha on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

Specification

Product Description	Human TGFA (P01135-1, Val40-Ala89) partial recombinant protein with hFc tag at N-Terminus expressed in HEK293 cells.
Sequence	Val40-Ala89
Host	Human
Theoretical MW (kDa)	32.9
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Activity	The EC ₅₀ was 6.0 ng/mL, measured by ELISA at 0.2 ug/mL. The affinity constant of 0.31 uM as determined in SPR assay (Biacore T200).
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE SEC-HPLC The purity of Human TGF-alpha is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human TGF-alpha on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SDS-PAGE SPR The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis

Applications

- Enzyme-linked Immunoabsorbent Assay

Immobilized Human TGF-alpha, hFc Tag at 0.2 ug/mL (100 uL/well) on the plate. Dose response curve for Biotinylated Anti-TGF-alpha Antibody, hFc Tag with the EC50 of 6.0 ng/mL determined by ELISA (QC Test).

- Functional Study

- SDS-PAGE

- Surface Plasmon Resonance

Human EGFR, His Tag captured on CM5 Chip via anti-his antibody can bind Human TGF-alpha, hFc Tag with an affinity constant of 0.31 uM as determined in SPR assay (Biacore T200).

Gene Info — TGFA

Entrez GeneID [7039](#)

Protein Accession# [P01135-1](#)

Gene Name TGFA

Gene Alias TFGA

Gene Description transforming growth factor, alpha

Omim ID [190170](#)

Gene Ontology [Hyperlink](#)

Gene Summary Transforming growth factors (TGFs) are biologically active polypeptides that reversibly confer the transformed phenotype on cultured cells. TGF-alpha shows about 40% sequence homology with epidermal growth factor (EGF; MIM 131530) and competes with EGF for binding to the EGF receptor (MIM 131550), stimulating its phosphorylation and producing a mitogenic response.[supplied by OMIM]

Other Designations transforming growth factor-alpha

Pathway

- [ErbB signaling pathway](#)

- [Glioma](#)
- [Non-small cell lung cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)
- [Renal cell carcinoma](#)

Disease

- [Adenocarcinoma](#)
- [Anodontia](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Diabetes Mellitus](#)
- [Disease Models](#)
- [Drug Toxicity](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Hepatitis B](#)
- [Irritable Bowel Syndrome](#)
- [Liver Neoplasms](#)
- [Mouth Neoplasms](#)
- [Pre-Eclampsia](#)

- [Prenatal Exposure Delayed Effects](#)
- [Stomach Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Tooth Abnormalities](#)
- [Uniparental Disomy](#)