

# Human TGF-alpha Protein

Cat. No. TGF-HM201



## Description

<b>Source</b>	Recombinant Human TGF-alpha Protein is expressed from HEK293 with hFc tag at the N-Terminus. It contains Val40-Ala89.
<b>Accession</b>	P01135-1
<b>Molecular Weight</b>	The protein has a predicted MW of 32.9 kDa. Due to glycosylation, the protein migrates to 38-45 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1 EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in 50mM Tris, 100mM NaCl (pH 8.0). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Transforming growth factor-alpha (TGFA) has been proposed as a candidate gene in the etiology of nonsyndromic cleft lip with or without cleft palate (NS-CL/P) and of nonsyndromic cleft palate only (NS-CPO). Biologic support for a role of TGFA arises from its presence at high levels in the epithelial tissue of the medial edge of the palatal shelves at the time of shelf fusion in mice.

## Assay Data

### Bis-Tris PAGE



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

### SEC-HPLC

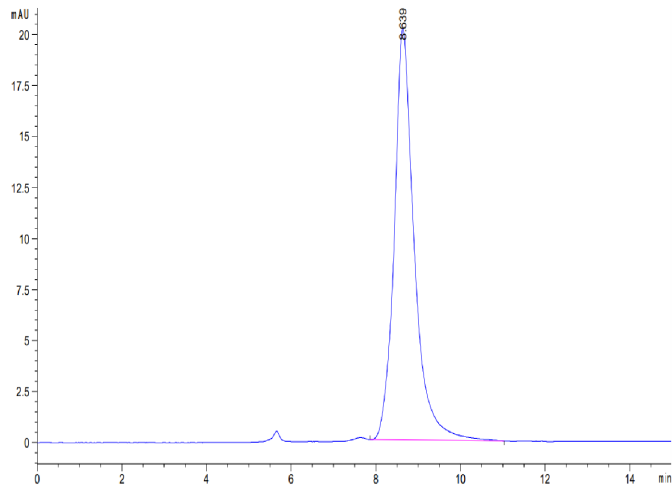


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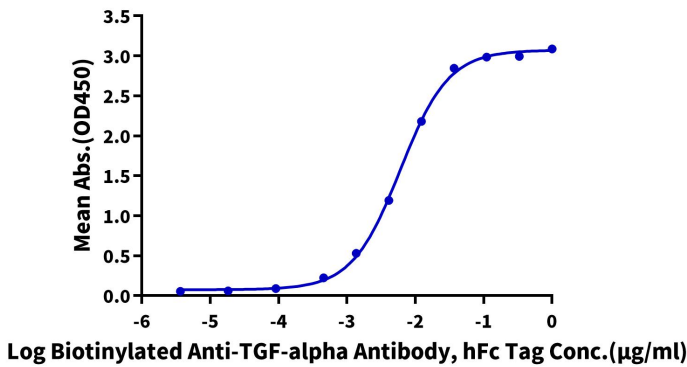
Assay Data



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

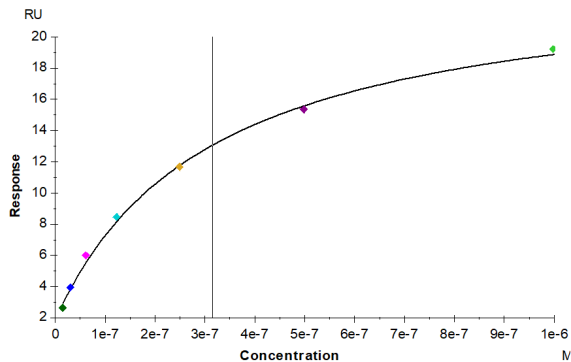
ELISA Data

**Human TGF-alpha, hFc Tag ELISA**  
0.02µg Human TGF-alpha, hFc Tag Per Well



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

SPR Data



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 µM as determined in SPR assay (Biacore T200).