

Human TGF-alpha Protein

Cat. No. TGF-HM201

Description

Source	Recombinant Human TGF-alpha Protein is expressed from HEK293 with hFc tag at the N-Terminus. It contains Val40-Ala89.
Accession	P01135-1
Molecular Weight	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.
Endotoxin	Less than 1EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

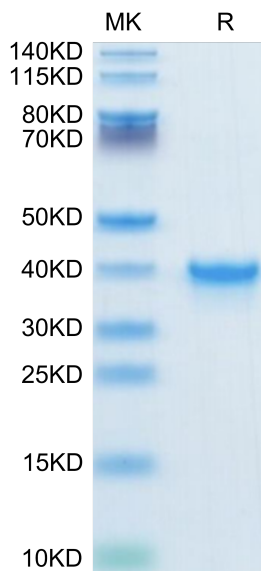
Formulation	Lyophilized from 0.22µm filtered solution in 50mM Tris, 100mM NaCl (pH 8.0). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days 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

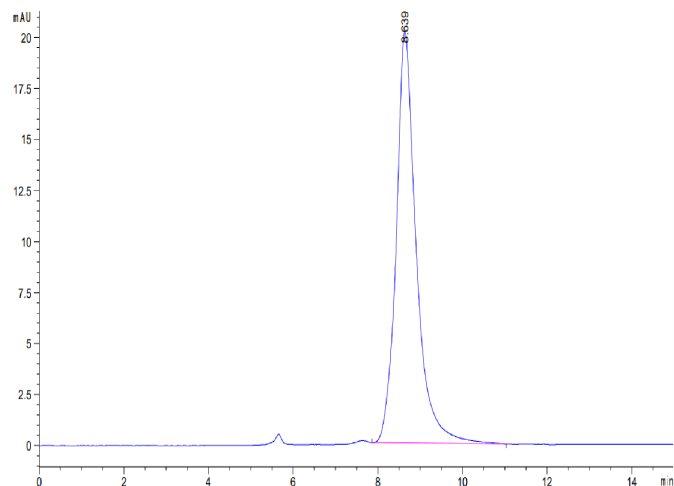
Bis-Tris PAGE



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

SEC-HPLC

Assay Data

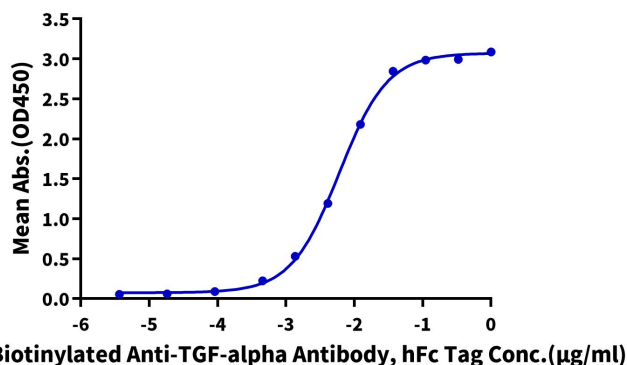


The purity of Human TGF-alpha is greater than 95% as determined by SEC-HPLC.

ELISA Data

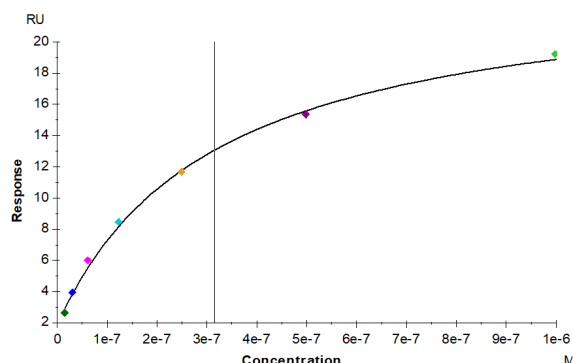
Human TGF-alpha, hFc Tag ELISA

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).