

Biotinylated Human TNF alpha Protein



Cat. No. TNF-HM40AB

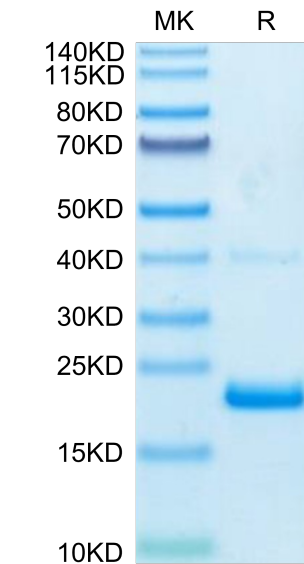
Description	
Source	Recombinant Biotinylated Human TNF alpha Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Val77-Leu233.
Accession	P01375
Molecular Weight	The protein has a predicted MW of 20.3 kDa. Due to glycosylation, the protein migrates to 21-24 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per µg by the LAL method.
Purity	> 90% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage	
Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-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	
Tumor necrosis factor alpha (TNF-alpha), also known as cachectin and TNFSF2, is the prototypic ligand of the TNF superfamily. It is a pleiotropic molecule that plays a central role in inflammation, immune system development, apoptosis, and lipid metabolism. Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia. Under certain conditions it can stimulate cell proliferation and induce cell differentiation.	

Assay Data

Bis-Tris PAGE



Biotinylated Human TNF alpha on Bis-Tris PAGE under reduced condition. The purity is greater than 90%.

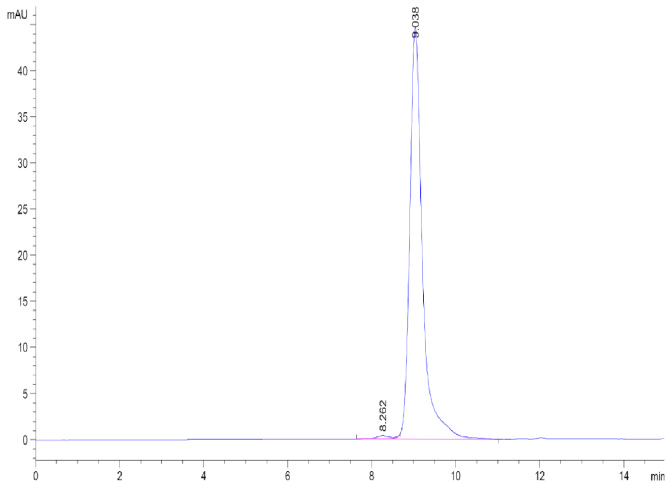
SEC-HPLC

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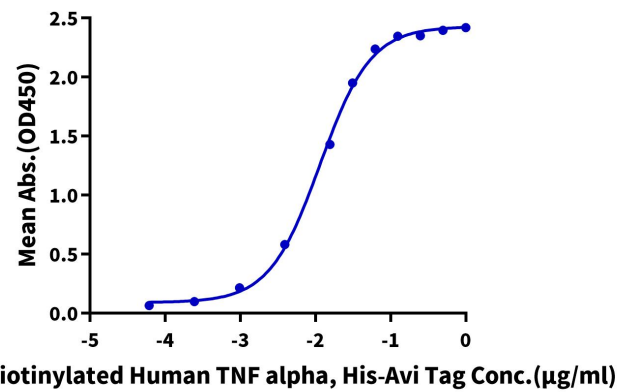
Assay Data



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

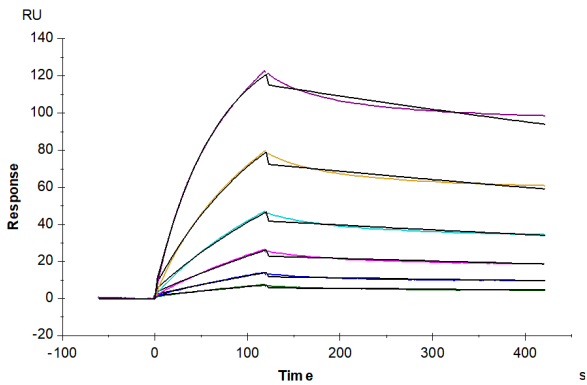
ELISA Data

Biotinylated Human TNF alpha, His-Avi Tag ELISA
0.05µg Human TNFR2, mFc Tag Per Well



Immobilized Human TNF R2, mFc Tag at 0.5µg/ml (100µl/Well) on the plate. Dose response curve for Biotinylated Human TNF alpha, His Tag with the EC50 of 11.5ng/ml determined by ELISA (QC Test).

SPR Data



Biotinylated Human TNF alpha, His Tag captured on CM5 Chip via Streptavidin can bind Human TNFR2, mFc Tag with an affinity constant of 1.18 nM as determined in SPR assay (Biacore T200).