

# Human Transferrin Protein, Ultra Low Endotoxin



Cat. No. TFN-HM101-UL

## Description

<b>Source</b>	Recombinant Human Transferrin Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Val20-Pro698.
<b>Accession</b>	AAH59367
<b>Molecular Weight</b>	The protein has a predicted MW of 76.3 kDa. Due to glycosylation, the protein migrates to 78-82 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.01 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

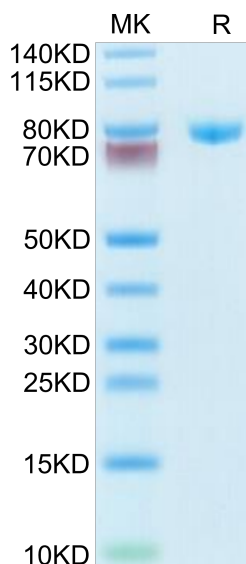
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</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

Transferrin (Tf), an iron transporter, is mainly biosynthesized in the liver, but can also be biosynthesized in the brain; i.e., by oligodendrocytes and the choroid plexus, a cerebrospinal fluid (CSF) producing tissue. The CSF contains two Tf isoforms, brain-type Tf and serum-type Tf, which differ in their glycan structures. Brain-type Tf is uniquely glycosylated with biantennary asialo- and agalacto-complex type N-glycans that carry bisecting  $\beta$ 1,4-GlcNAc and core  $\alpha$ 1,6-Fuc. The glycans of serum-type Tf in the CSF are similar to those of Tf in serum.

## Assay Data

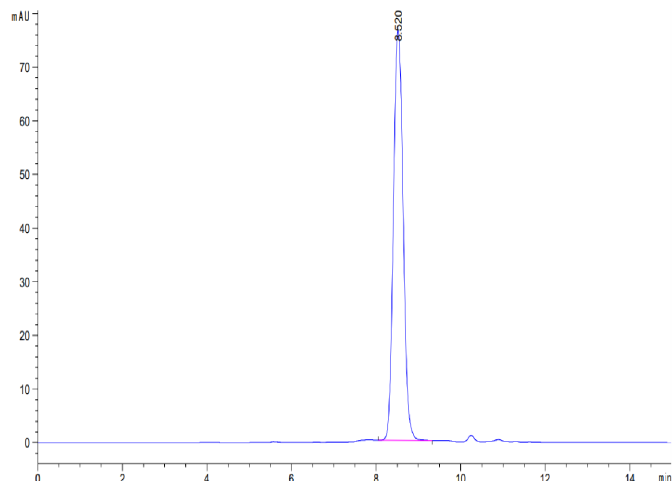
### Bis-Tris PAGE



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

### SEC-HPLC

Assay Data

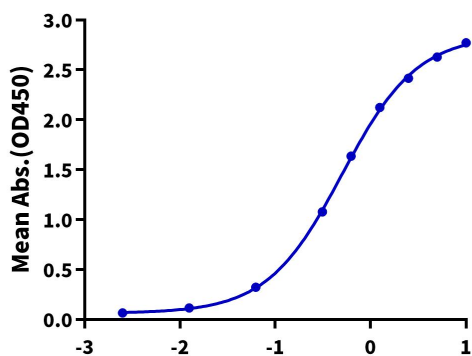


The purity of Human Transferrin is greater than 95% as determined by SEC-HPLC.

ELISA Data

**Human Transferrin, His Tag ELISA**

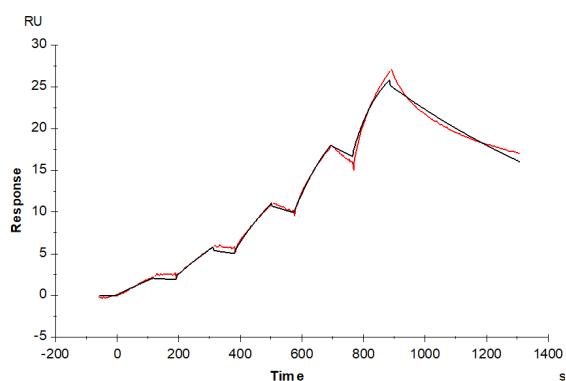
0.2µg Human Transferrin, His Tag Per Well



Immobilized Human Transferrin, His Tag at 2µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human Transferrin R, His Tag with the EC50 of 0.50µg/ml determined by ELISA (QC Test).

Log Biotinylated Human Transferrin R, His Tag Conc.(µg/ml)

SPR Data



Human Transferrin, His Tag immobilized on CM5 Chip can bind Human Transferrin R, His Tag with an affinity constant of 11.26 nM as determined in SPR assay (Biacore T200).