

Human Transferrin Protein

Cat. No. TFN-HM101

Description

Source	Recombinant Human Transferrin Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Val20-Pro698.
Accession	AAH59367
Molecular Weight	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.
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

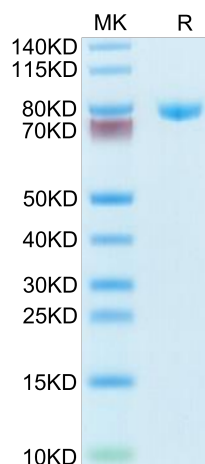
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 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 β 1,4-GlcNAc and core α 1,6-Fuc. The glycans of serum-type Tf in the CSF are similar to those of Tf in serum.

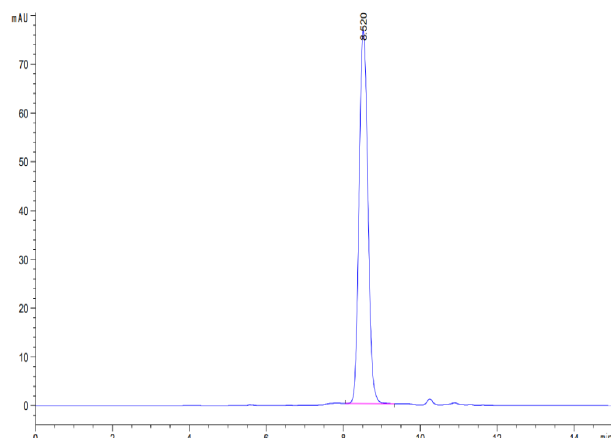
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



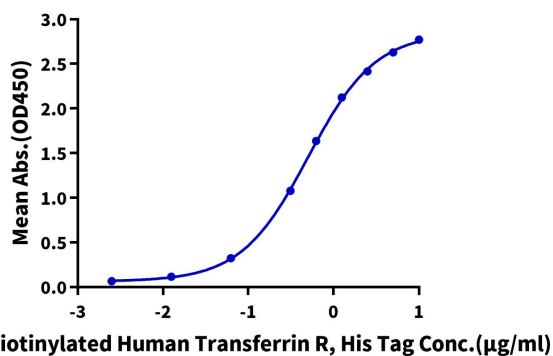
The purity of Human Transferrin is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

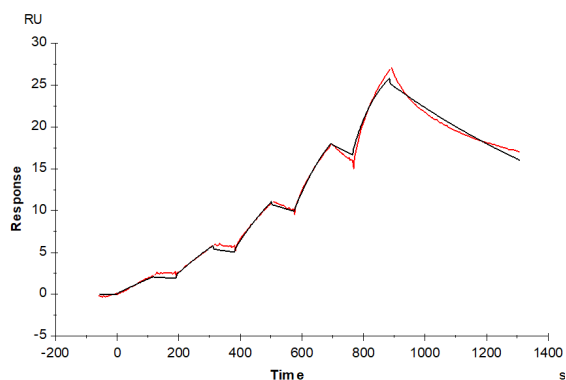
Human Transferrin, His Tag ELISA

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).

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).