


## Human Transferrin protein

Cat #: PRP2041

Size: 10 µg /50 µg/100 µg /1 mg

### Product Information

	<b>Product Name:</b> Human Transferrin protein		
	<b>Reconstitution:</b> Use the buffer we provided to reconstitute the lyophilized Human Transferrin protein		
<b>REF</b>	<b>Catalog Number:</b> PRP2041	<b>LOT</b>	<b>Lot Number:</b> Refer to product label
	<b>Purity:</b> ≥95 % as determined by SDS-PAGE		
	<b>Storage:</b> Store at -20°C		<b>Preparation method:</b> HEK293 Cells
	<b>Shipping:</b> The product is shipped at ambient temperature.		

**Background:** Transferrin (Tf), is an iron transporter, which is mainly biosynthesized in the liver, and it can also be biosynthesized in the brain; i.e., by oligodendrocytes and the choroid plexus, 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. Biochemical analyses reveal that the apparent molecular size of brain-type Tf is smaller than that of serum-type Tf, and that hydrophobic patches are exposed on brain-type Tf as demonstrated by hydrophobic probe binding studies. Research indicates that brain-type Tf levels is decreased in idiopathic normal pressure hydrocephalus, in which CSF production is suspected to decrease, while brain-type Tf increased in spontaneous intracranial hypotension, in which CSF production is suspected to increase. These results suggest that brain-type Tf could be a biomarker of altered CSF production.

**Sequence:** Amino acid sequence derived from Human Transferrin protein isoform (P02787, Met 1-Pro 698) with a polyhistidine tag at the C-terminus was expressed.

**Protein length:** The recombinant Human Transferrin protein consists of 690 amino acids and has a predicted molecular mass of 76.6 kDa. The apparent molecular mass of the Human Transferrin protein is approximately 70-100 kDa in SDS-PAGE under reducing conditions.

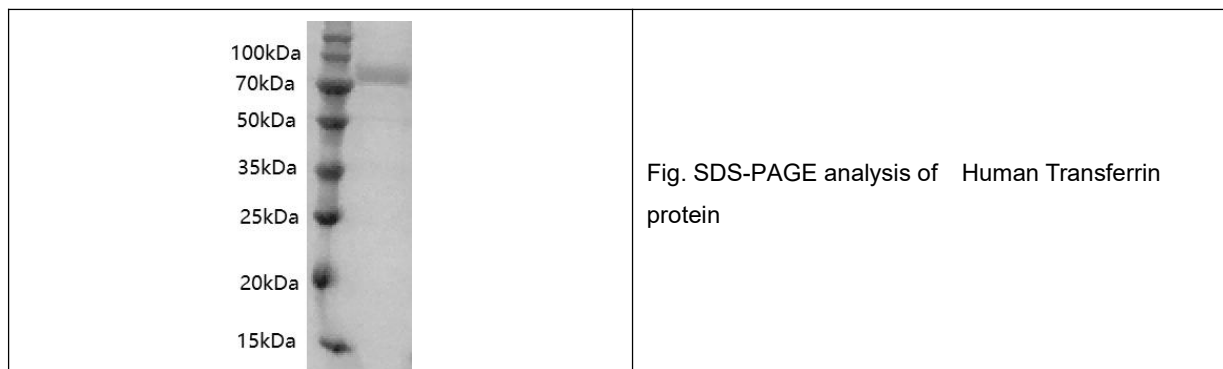
**Biological Activity:** Testing in progress.

**Endotoxin:** < 1 EU per µg of the protein as determined by the LAL method.

**Formulation:** Lyophilized from sterile PBS, pH 7.4.

**Storage Instructions:** Lyophilized Human Transferrin protein product should be stored desiccated below -18°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Usage notes:** Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human Transferrin protein using the buffer we provided not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.



**Note:** The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.