

# Non-biotinylated Human Transferrin R/CD71 Protein

Cat. No. TFR-HM401



## Description

|                         |                                                                                                                                    |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Source</b>           | Recombinant Human Transferrin R/CD71 Protein is expressed from HEK293 with His tag and Avi tag at the N-Terminus.                  |
|                         | It contains Cys89-Phe760.                                                                                                          |
| <b>Accession</b>        | P02786                                                                                                                             |
| <b>Molecular Weight</b> | The protein has a predicted MW of 77.9 kDa. Due to glycosylation, the protein migrates to 78-85 kDa based on Bis-Tris PAGE result. |
| <b>Endotoxin</b>        | Less than 1 EU per µg by the LAL method.                                                                                           |
| <b>Purity</b>           | > 90% as determined by Bis-Tris PAGE                                                                                               |
|                         | > 95% as determined by HPLC                                                                                                        |

## Formulation and Storage

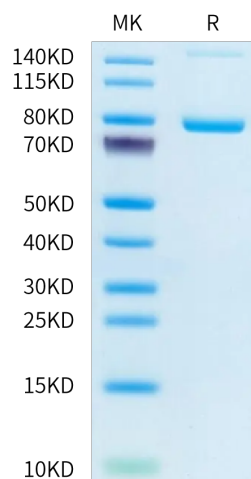
|                       |                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Formulation</b>    | Lyophilized from 0.22 µm 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

The transferrin receptor (CD71) is known as a receptor for IgA1 on mesangial cells. The transcript and protein expression of glomerular CD71 was determined by real-time polymerase chain reaction and immunohistochemistry. Human mesangial cells (HMCs) were treated with sera from IgAN patients and expression levels of CD71 and inflammatory cytokine markers were compared according to disease status.

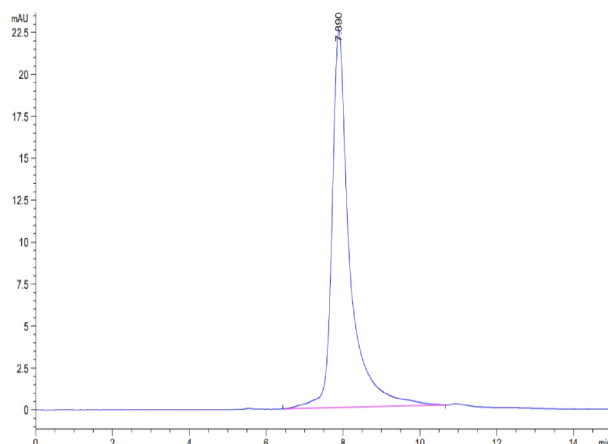
## Assay Data

### Bis-Tris PAGE



Human Transferrin R on Bis-Tris PAGE under reduced condition. The purity is greater than 90%.

### SEC-HPLC



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

Non-biotinylated Human Transferrin R/CD71 Protein

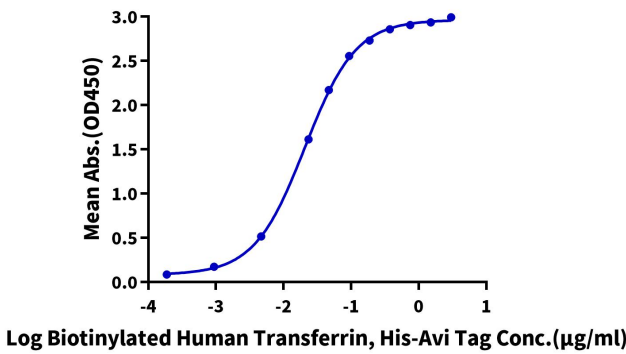
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Assay Data

ELISA Data

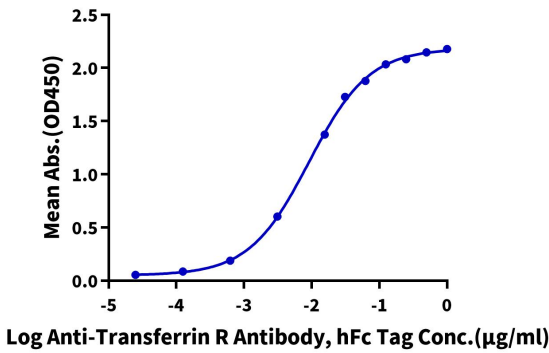
Human Transferrin R, His Tag ELISA  
0.5µg Human Transferrin R, His Tag Per Well



Immobilized Human Transferrin R, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human Transferrin, His-Avi Tag with the EC50 of 20.8ng/ml determined by ELISA.

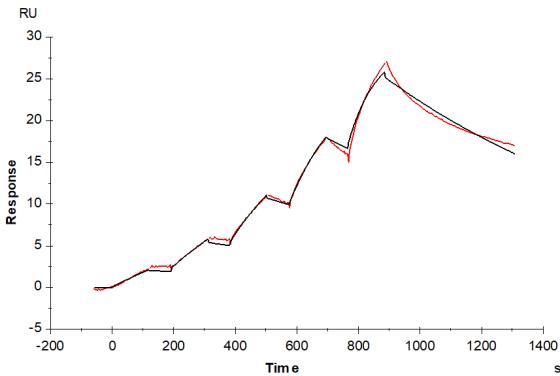
ELISA Data

Human Transferrin R, His Tag ELISA  
0.1µg Human Transferrin R, His Tag Per Well



Immobilized Human Transferrin R, His Tag at 1 µg/ml (100 µl/well) on the plate. Dose response curve for Anti-Transferrin R Antibody, hFc Tag with the EC50 of 9.2 ng/ml determined by ELISA.

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).