## Biotinylated Human Transferrin R / CD71 Protein, Avitag™, His Tag (MALS verified)

Catalog # TFR-H82E5



### **Synonym**

CD71,TFRC,TFR,sTfR,TfR1,Trfr,T9,p90

#### Source

Biotinylated Human Transferrin R, Avitag, His Tag(TFR-H82E5) is expressed from human 293 cells (HEK293). It contains AA Cys 89 - Phe 760 (Accession # P02786-1).

Predicted N-terminus: Gly

### **Molecular Characterization**



This protein carries an Avi tag (Avitag<sup>TM</sup>) at the N-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 78.7 kDa. The protein migrates as 90-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Labeling

Biotinylation of this product is performed using Avitag<sup>TM</sup> technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

#### **Protein Ratio**

Passed as determined by the HABA assay / binding ELISA.

#### **Endotoxin**

Less than 1.0 EU per µg by the LAL method.

### **Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### **Formulation**

Lyophilized from 0.22  $\mu m$  filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

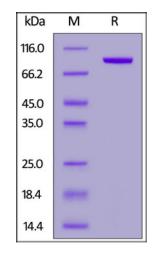
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

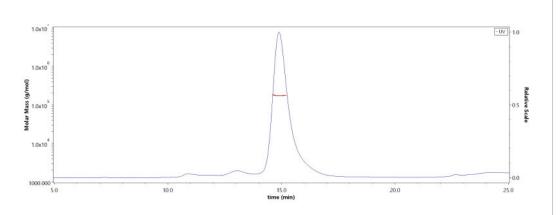
## **SDS-PAGE**



Biotinylated Human Transferrin R, Avitag, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

# **Bioactivity-ELISA**

# SEC-MALS



The purity of Biotinylated Human Transferrin R, Avitag, His Tag (Cat. No. TFR-H82E5) is more than 90% and the molecular weight of this protein is around 160-180 kDa verified by SEC-MALS.

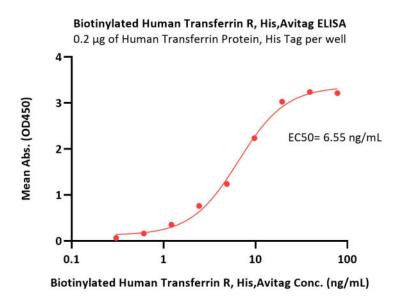
Report



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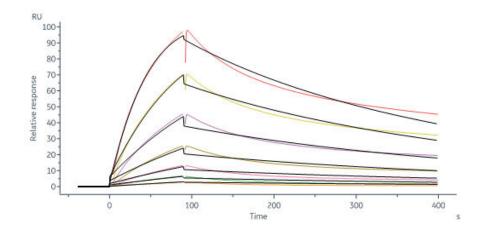






Immobilized Human Transferrin Protein, His Tag (Cat. No. TRN-H52H3) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human Transferrin R, Avitag,His Tag (Cat. No. TFR-H82E5) with a linear range of 1.2-9.7 ng/mL (QC tested).

### **Bioactivity-SPR**



Brain-penetrant, anti-amyloid, bispecific antibody immobilized on CM5 Chip can bind Biotinylated Human Transferrin R, Avitag, His Tag (Cat. No. TFR-H82E5) with an affinity constant of 29.2 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Background

CD antigen CD71 is also known as Transferrin receptor protein 1, TfR, sTfR, p90, TfR1, Trfr, which belongs to the peptidase M28 family and M28B subfamily. CD71 /TFR contains one PA (protease associated) domain. CD71 / TfR1 is required for iron delivery from transferrin to cells. CD71 is a potential new target in cases of human leukomia & lymphoma. CD71 /TFRC / TfR has been shown to interact with GABARAP and HFE.

## **Clinical and Translational Updates**

