Catalog # CD1-H5243



#### Synonym

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

#### Source

Human Transferrin R, His Tag(CD1-H5243) is expressed from human 293 cells (HEK293). It contains AA Cys 89 - Phe 760 (Accession # <u>P02786-1</u>). Predicted N-terminus: His

# **Molecular Characterization**

TfR(Cys 89 - Phe 760) Poly-his P02786-1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 77.0 kDa. The protein migrates as 80 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

## Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

## Purity

>95% as determined by SDS-PAGE.

#### 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

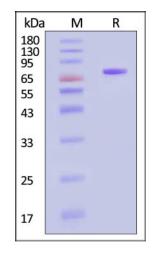
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

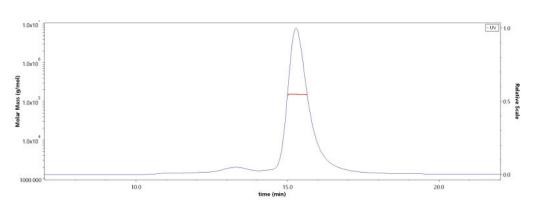
- -20°C to -70°C for 12 months in lyophilized state;
- $70^{\circ}$ C for 12 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Human Transferrin R, 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% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# SEC-MALS



The purity of Human Transferrin R, His Tag (Cat. No. CD1-H5243) is more than 85% and the molecular weight of this protein is around 145-180 kDa verified by SEC-MALS. Report

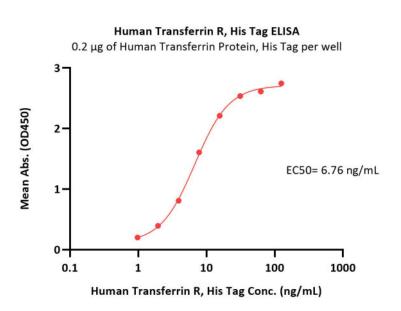
#### **Bioactivity-ELISA**



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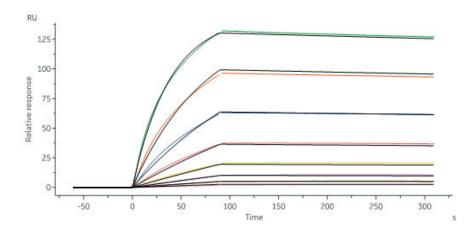
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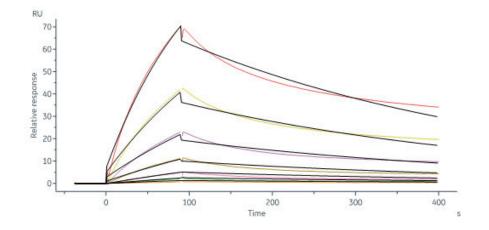


Immobilized Human Transferrin Protein, His Tag (Cat. No. TRN-H52H3) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Human Transferrin R, His Tag (Cat. No. CD1-H5243) with a linear range of 2-7.8 ng/mL (QC tested).

# **Bioactivity-SPR**



Captured Monoclonal Anti-CD71 Antibody, Mouse IgG1 (5B5) (Cat. No. CD1-MY2101) on CM5 chip via anti-mouse antibodies surface can bind Human Transferrin R, His Tag (Cat. No. CD1-H5243) with an affinity constant of 0.821 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).



Brain-penetrant, anti-amyloid, bispecific antibody immobilized on CM5 Chip can bind Human Transferrin R, His Tag (Cat. No. CD1-H5243) with an affinity constant of 94.4 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.





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