

For Research Use Only

# Recombinant Human Transferrin R/CD71 protein (His Tag)



Catalog Number: Eg0339

## Basic Information

**ED50:**  
54-216 ng/mL

**GenelD:**  
7037

**Species:**  
Human

**Accession:**  
CAA25527

**Purity:**  
>95 %, SDS-PAGE

## Technical Specifications

**Purity:**  
>95 %, SDS-PAGE

**Endotoxin Level:**  
<1.0 EU/  $\mu$ g protein, LAL method

**Source:**  
HEK293-derived Human Transferrin R protein Cys89-Phe760 (Accession# CAA25527) with a His tag at the N-terminus.

**Predicted Molecular Mass:**  
76 kDa

**SDS-PAGE:**  
75-90 kDa, reducing (R) conditions

**Formulation:**  
Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

## Biological Activity

Immobilized Human Transferrin R (His tag) at 0.5  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human Transferrin (Myc tag, His tag) with a linear range of 54-216 ng/mL.

## Storage and Shipping

**Storage:**  
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

**Shipping:**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

## Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

## Background

CD71 also known as transferrin receptor protein 1 (TfR1), is a transmembrane glycoprotein composed of two disulfide-linked monomers. Each monomer binds one holo-transferrin molecule creating an iron-Tf-TfR complex that enters the cell by endocytosis. CD71 is almost ubiquitously expressed, with the highest expression levels on some cells and tissues, including immature erythroid cells, placental tissue, and rapidly dividing cells. CD71 is involved in iron (Fe<sup>3+</sup>) uptake, and expression is regulated by the metabolic demand for iron. CD71 is present in actively proliferating cells and is essential for iron transport into proliferating cells.

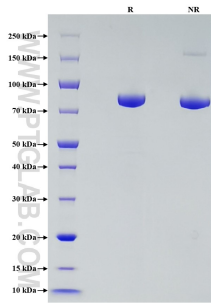
## References

1. Speeckaert MM. et al. (2010). Crit Rev Clin Lab Sci. 47(5-6):213-228.
2. Dong HY. et al. (2011). Am J Surg Pathol. 35(5):723-732.
3. Jabara HH. et al. (2016). Nat Genet. 48(1):74-78.
4. Senyilmaz D. et al. (2015). Nature. 525(7567):124-128.

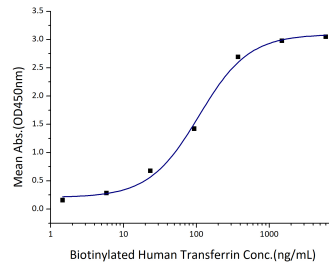
## Synonyms

CD71, p90, T9, TFR, TFR1, TFRC, TR, Transferrin R, TRFR

## Selected Validation Data



Purity of Recombinant Human Transferrin R was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



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For technical support and original validation data for this product please contact

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