# Cynomolgus / Rhesus Transferrin Receptor / TFRC / CD71 Protein (His Tag)

Catalog Number: 90253-C07H



## **General Information**

#### Gene Name Synonym:

**TFRC** 

## **Protein Construction:**

A DNA sequence encoding the cynomolgus TFRC (XP\_005545315.1) (Cys89-Phe760) was expressed with a polyhistidine tag at the N-terminus. Cynomolgus and Rhesus TFRC sequences are identical.

Source: Cynomolgus

Expression Host:
OC Testing

Purity: > 95 % as determined by SDS-PAGE

**Bio Activity:** 

Measured by its ability to neutralize transferrin-mediated proliferation of MCF-7 cells. The ED $_{50}$  for this effect is typically 0.2-2µg/mL.

#### **Endotoxin:**

< 1.0 EU per µg of the protein as determined by the LAL method

HEK293 Cells

## Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

## **Molecular Mass:**

The recombinant cynomolgus TFRC comprises 692 amino acids and has a calculated molecular mass of 77.6 KDa.

#### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

# **Usage Guide**

## Storage:

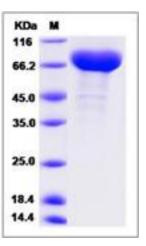
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

## Avoid repeated freeze-thaw cycles.

# Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

Transferrin receptor protein 1, also known as transferrin receptor, Trfr, p90, CD71 and TFRC, is a single-pass type II membrane protein which belongs to thepeptidase M28 family and M28B subfamily. TFRC / CD71 is a membrane-bound protein expressed in larger amounts in proliferating. The specific expression of TFRC can represent a diagnostic tool or a therapeutic target in solid tumours expressing this antigen. Transferrin receptor is necessary for development of erythrocytes and the nervous system. TFRC / CD71 is regulated by cellular iron levels through binding of the iron regulatory proteins, IRP1 and IRP2, to iron-responsive elements in the 3'-UTR. Up-regulated upon mitogenic stimulation. TFRC / CD71 represents a marker of malignant transformation in the pancreas that could be applied as potential diagnostic and therapeutic target.

## References

1.Douabin-Gicquel V., et al., 2001,Hum. Genet. 109:393-401. 2.Ryschich,E. et al., 2004,Eur J Cancer. 40 (9):1418-22. 3.Tosoni D., et al., 2005, Cell 123:875-888.

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