

# Transferrin Receptor (PT0360R) PT™ Rabbit mAb

CatalogNo: YM8213

Recombinant KD/KO Validated  

## Key Features

### Host Species

- Rabbit

### Reactivity

- Human, Mouse, Rat

### Applications

- WB, IHC, IF, IP, ELISA

### MW

- 84kD (Calculated)
- 84kD (Observed)

### Isotype

- IgG, Kappa

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

## Recommended Dilution Ratios

**IHC 1:200-1:1000**

**WB 1:1000-1:5000**

**IF 1:200-1:1000**

**ELISA 1:5000-1:20000**

**IP 1:50-1:200,**

## Basic Information

**Clonality** Monoclonal

**Clone Number** PT0360R

## Immunogen Information

**Specificity** Endogenous

## Target Information

**Gene name** TFRC

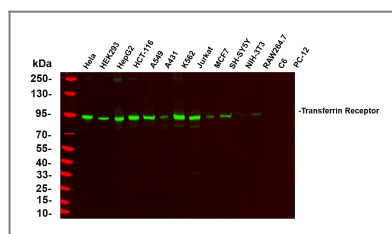
**Protein Name** Transferrin receptor protein 1 (TR) (TfR) (TfR1) (Trfr) (T9) (p90) (CD antigen CD71) [Cleaved into: Transferrin receptor protein 1, serum form (sTfR)]

Organism	Gene ID	UniProt ID
Human	<a href="#">7037;</a>	<a href="#">P02786;</a>
Mouse	<a href="#">22042;</a>	<a href="#">Q62351;</a>
Rat		<a href="#">Q99376;</a>

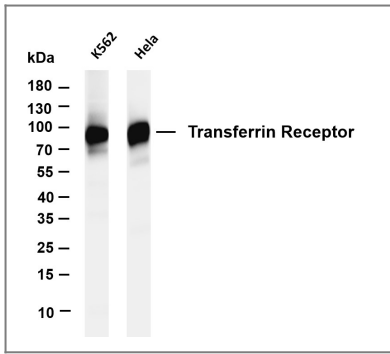
**Cellular Localization** Membrane

**Function** Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes . Endosomal acidification leads to iron release. The apotransferrin-receptor complex is then recycled to the cell surface with a return to neutral pH and the concomitant loss of affinity of apotransferrin for its receptor. Transferrin receptor is necessary for development of erythrocytes and the nervous system (By similarity). A second ligand, the hereditary hemochromatosis protein HFE, competes for binding with transferrin for an overlapping C-terminal binding site. Positively regulates T and B cell proliferation through iron uptake . Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway . When dietary levels of stearate (C18:0) are low, promotes activation of the JNK pathway, resulting in HUWE1-mediated ubiquitination and subsequent degradation of the mitofusin MFN2 and inhibition of mitochondrial fusion . When dietary levels of stearate (C18:0) are high, TFRC stearylation inhibits activation of the JNK pathway and thus degradation of the mitofusin MFN2 . ; (Microbial infection) Acts as a receptor for new-world arenaviruses: Guanarito, Junin and Machupo virus.

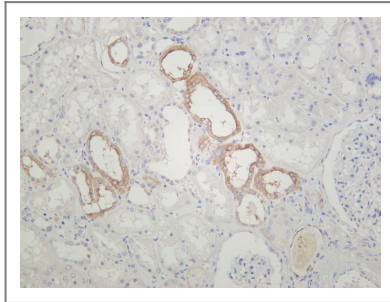
## Validation Data



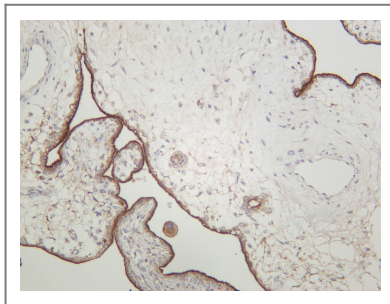
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody(Cat:RS23920) was used to detect the antibody. Lane1: HeLa - Human cervical cancer Lane2: HEK293 - Human normal embryonic kidney Lane3: HepG2 - Human hepatocellular carcinoma Lane4: HCT-116 - Human colon cancer Lane5: A549 - Human lung adenocarcinoma Lane6: A431 - Human skin squamous cell carcinoma Lane7: K562 - Human chronic myeloid leukemia Lane8: Jurkat - Human acute T cell leukemia cells Lane9: MCF7 - Human breast cancer Lane10: SH-SY5Y - Human neuroblastoma cells Lane11: NIH-3T3 - NIH mouse fibroblasts Lane12: RAW264.7 - Mouse mononuclear macrophage leukemia cells Lane13: C6 - Rat glioma cells Lane14: PC-12 - Pheochromocytoma in rats Predicted band size: 84kDa Observed band size: 84kDa



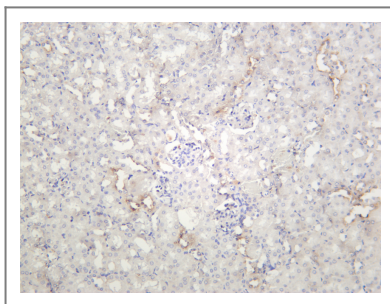
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Transferrin Receptor antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: K562 Lane 2: HeLa Predicted band size: 84kDa Observed band size: 84kDa



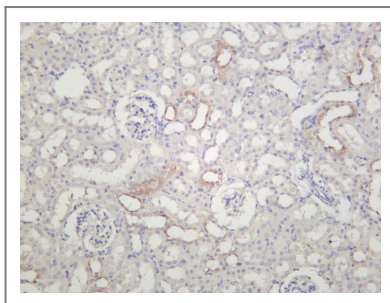
Human kidney was stained with anti-Transferrin Receptor rabbit antibody



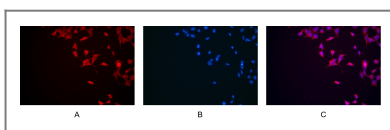
Human placenta was stained with anti-Transferrin Receptor rabbit antibody



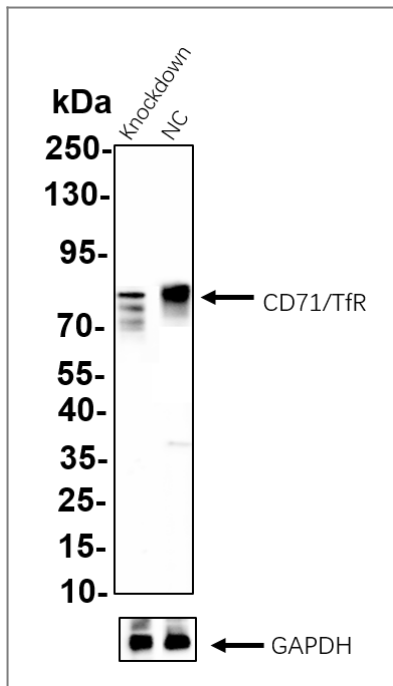
Mouse kidney was stained with anti-Transferrin Receptor rabbit antibody



Rat kidney was stained with anti-Transferrin Receptor rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: Transferrin Receptor antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B



Western blot analysis of lysates from HeLa WT and knockdown cell. Cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with Transferrin Receptor (PT0360R) rabbit mAb. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody.

## Contact information

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