Anti-Transferrin Receptor (CD71) Antibody [JF0956] - BSA and Azide free

HA750333

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IP, FC
Molecular Wt:	Predicted band size: 85 kDa
Clone number:	JF0956

Description: CD71, also known as the transferrin receptor (TFR), is a type II membrane glycoprotein that exists as a disulfide-linked homodimer of two identical subunits. CD71 binds to two molecules of transferrin and a serum iron-transport protein, and directs the cellular uptake of iron via receptor-mediated endocytosis. CD71 is expressed, typically at high levels, on all proliferating cells, reticulocytes and erythroid precursors. It is not expressed on resting leukocytes, but is upregulated upon activation of lymphocytes, monocytes and macrophages. CD71 is also found on most dividing cells and on brain endothelium. A second transferrin receptor, TFR2, also mediates the uptake of transferrin-bound iron. TFR2 is a two-subunit homodimer and is highly expressed in liver as well as in hepatocytes and erythroid precursors. Mutations in the TFR2 gene result in hereditary hemochromatosis type III (HFE3), an iron overloading disorder predominant in Caucasians.

Immunogen: Synthetic peptide within Human CD71 aa 22-60 / 760.

Positive control: HeLa cell lysate, K-562 cell lysate, SW480 cell lysate, U-87 MG cell lysate, RAW264.7 cell lysate, mouse spleen tissue lysate, rat spleen tissue lysate, Hela.

Subcellular location: Cell membrane, Melanosome, Secreted.

Database links: SwissProt: P02786 Human | Q62351 Mouse | Q99376 Rat

Recommended Dilutions:

WB	1:1,000-1:10,000
FC	1:1,000
IP	Use at an assay dependent concentration.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

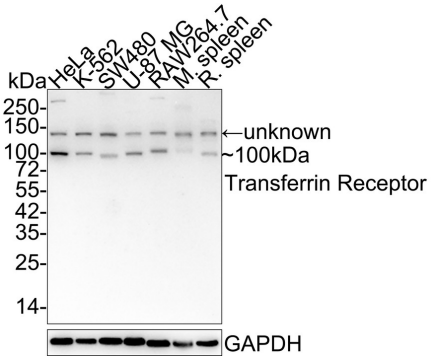

Fig1: Western blot analysis of Transferrin Receptor (CD71) on different lysates with Rabbit anti-Transferrin Receptor (CD71) antibody (HA750333) at 1/2,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: K-562 cell lysate
Lane 3: SW480 cell lysate
Lane 4: U-87 MG cell lysate
Lane 5: RAW264.7 cell lysate
Lane 6: Mouse spleen tissue lysate
Lane 7: Rat spleen tissue lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 85 kDa
Observed band size: 100 kDa

Exposure time: 5 minutes;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750333) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:50,000 dilution was used for 1 hour at room temperature.

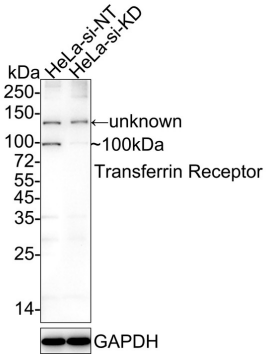

Fig2: Western blot analysis of Transferrin Receptor (CD71) on different lysates with Rabbit anti-Transferrin Receptor (CD71) antibody (HA750333) at 1/1,000 dilution.

Lane 1: HeLa-si NT cell lysate
Lane 2: HeLa-si Transferrin Receptor cell lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 85 kDa
Observed band size: 100 kDa

Exposure time: 1 minute 20 seconds;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750333) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

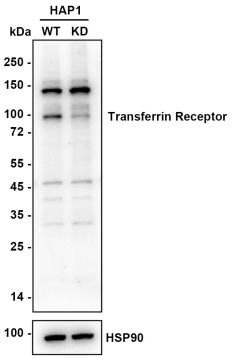

Fig3: Western blot analysis of Transferrin Receptor (CD71) on different lysates with Rabbit anti-Transferrin Receptor (CD71) antibody (HA750333) at 1/5,000 dilution.

Lane 1: HAP1 WT cell lysate
Lane 2: HAP1 Transferrin Receptor KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 85 kDa
Observed band size: 90 kDa

Exposure time: 1 minute 48 seconds; ECL: K1802;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750333) at 1/5,000 dilution was used in TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

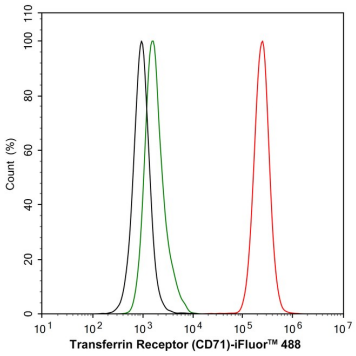

Fig4: Flow cytometric analysis of HeLa cells labeling Transferrin Receptor (CD71).

Cells were fixed and permeabilized. Then stained with the primary antibody (HA750333, 1µg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Xiong L et al. Nutrition impact on ILC3 maintenance and function centers on a cell-intrinsic CD71-iron axis. Nat Immunol. 2023 Oct;
2. Chiappelli F. CD71: Role in permafrost immunity. Bioinformation. 2024 Mar