

CD71 (C-20): sc-7087

BACKGROUND

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.

CHROMOSOMAL LOCATION

Genetic locus: TFRC (human) mapping to 3q29; Tfr (mouse) mapping to 16 B3.

SOURCE

CD71 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CD71 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7087 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD71 (C-20) is recommended for detection of CD71 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD71 siRNA (h): sc-37070, CD71 siRNA (m): sc-37071, CD71 shRNA Plasmid (h): sc-37070-SH, CD71 shRNA Plasmid (m): sc-37071-SH, CD71 shRNA (h) Lentiviral Particles: sc-37070-V and CD71 shRNA (m) Lentiviral Particles: sc-37071-V.

Molecular Weight of CD71 dimer: 85-95/190 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

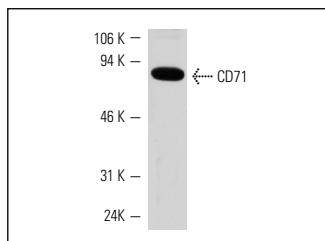
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

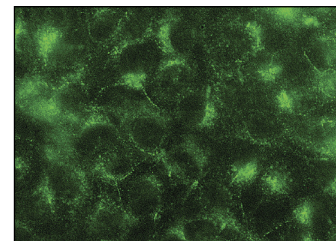
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



CD71 (C-20): sc-7087. Western blot analysis of CD71 expression in CCRF-CEM whole cell lysate.



CD71 (C-20): sc-7087. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

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- Qian, Y., et al. 2011. Cell culture and gene transcription effects of copper sulfate on chinese hamster ovary cells. *Biotechnol. Prog.* 27: 1190-1194.
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Try **CD71 (3B8 2A1): sc-32272** or **CD71 (YTA 74.4): sc-59112**, our highly recommended monoclonal alternatives to CD71 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **CD71 (3B8 2A1): sc-32272**.