

TFRC Rabbit pAb

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Catalog # AP94411

Product Information

Application	WB, E
Primary Accession	Q62351
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	85731
Physical State	Liquid
Immunogen	Recombinant Mouse CD71 protein
Epitope Specificity	89-763/763
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Single-pass type II membrane protein. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
SIMILARITY	Belongs to the peptidase M28 family. M28B subfamily. Contains 1 PA (protease associated) domain.
SUBUNIT	Homodimer; disulfide-linked. Binds one transferrin or HFE molecule per subunit. Binds the HLA class II histocompatibility antigen, DR1. Interacts with SH3BP3. Interacts with Machupo arenavirus GPC.
Post-translational modifications	N- and O-glycosylated, phosphorylated and palmitoylated. The serum form is only glycosylated. Proteolytically cleaved on Arg-100 to produce the soluble serum form (sTfR). Palmitoylated on both Cys-62 and Cys-67. Cys-62 seems to be the major site of palmitoylation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a cell surface receptor necessary for cellular iron uptake by the process of receptor-mediated endocytosis. This receptor is required for erythropoiesis and neurologic development. Multiple alternatively spliced variants have been identified. [provided by RefSeq, Sep 2015]

Additional Information

Gene ID	22042
Other Names	Transferrin receptor protein 1, TR, TfR, TfR1, Trfr, CD71, Tfrc, Trfr
Dilution	WB=1:500-2000,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name Tfrc

Synonyms Trfr

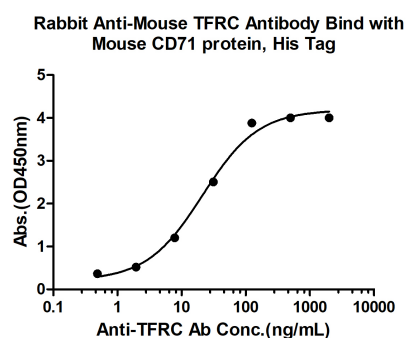
Function Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (By similarity). Endosomal acidification leads to iron release. The apotransferrin-receptor complex is then recycled to the cell surface with a return to neutral 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). Upon stimulation, positively regulates T and B cell proliferation through iron uptake (PubMed:[26642240](#)). Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway (By similarity). 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 (By similarity). When dietary levels of stearate (C18:0) are high, TFRC stearylation inhibits activation of the JNK pathway and thus degradation of the mitofusin MFN2 (By similarity). Mediates uptake of NICOL1 into fibroblasts where it may regulate extracellular matrix production (PubMed:[38625739](#)).

Cellular Location Cell membrane {ECO:0000250|UniProtKB:P02786}; Single-pass type II membrane protein {ECO:0000250|UniProtKB:P02786} Melanosome {ECO:0000250|UniProtKB:P02786}

Background

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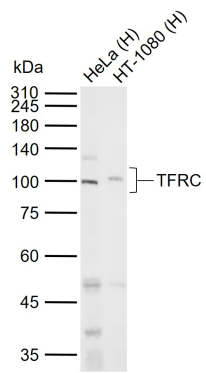
Images



Measured by its binding ability in a indirect ELISA. Immobilized Mouse CD71 protein, His Tag (Cat. bs-41377P) at 2 µg/mL (100 µL/well) can bind Rabbit Anti-Mouse TFRC Antibody, the EC50 is 21.28 ng/mL.

Sample: Lane 1: Human HeLa cell lysates Lane 2: Human HT-1080 cell lysates Primary: Anti-TFRC (AP94411) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 74/85 kDa

Observed band size: 100 kDa



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