

Anti-TFRC Picoband Antibody

Catalog # ABO11924

Product Information

Application	WB, IHC-P
Primary Accession	P02786
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Transferrin receptor protein 1(TFRC) detection. Tested with WB, IHC-P in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	7037
Other Names	Transferrin receptor protein 1, TR, TfR, TfR1, Trfr, T9, p90, CD71, Transferrin receptor protein 1, serum form, sTfR, TFRC
Calculated MW	84871
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Cell membrane ; Single-pass type II membrane protein . Melanosome . Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Source	Eukaryota
Protein Name	Transferrin receptor protein 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human TFRC recombinant protein (Position: M1-N198). Human TFRC shares 72% and 70% amino acid (aa) sequences identity with mouse and rat TFRC, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also

be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the peptidase M28 family. M28B subfamily.

Protein Information

Name	TFRC
Function	Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (PubMed: 26214738 , PubMed: 41772062). 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 (PubMed: 26642240). Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway (PubMed: 26214738). 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 (PubMed: 26214738). When dietary levels of stearate (C18:0) are high, TFRC stearoylation inhibits activation of the JNK pathway and thus degradation of the mitofusin MFN2 (PubMed: 26214738). Mediates uptake of NICOL1 into fibroblasts where it may regulate extracellular matrix production (By similarity).
Cellular Location	Cell membrane; Single-pass type II membrane protein Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

Background

Transferrin receptor protein 1 (TfR1), also known as Cluster of Differentiation 71 (CD71), is a protein that in humans is encoded by the TFRC gene. It is mapped to 3q29. TFRC is a transmembrane glycoprotein composed of two disulfide-linked monomers joined by two disulfide bonds. Expression of human TFR1 in hamster cell lines markedly enhanced the infection of viruses pseudotyped with the glycoprotein of Machupo, Guanarito, and Junin viruses. TFR1 is a cellular receptor for New World hemorrhagic fever arenaviruses. It is required for iron delivery from transferrin to cells.

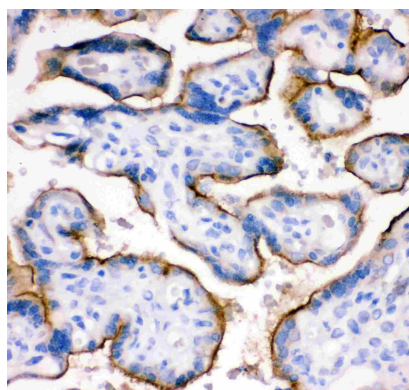
Images



Anti- TFRC antibody, ABO11924, Western blottingAll lanes:
Anti TFRC (ABO11924) at 0.5ug/mlWB: Recombinant
Human TRFC Protein 0.5ngPredicted bind size:
45KDObserved bind size: 45KD



Anti- TFRC antibody, ABO11924, Western blotting
 All lanes:
 Anti TRFC (ABO11924) at 0.5ug/ml
 Lane 1: HELA Whole Cell Lysate at 40ug
 Lane 2: JURAKT Whole Cell Lysate at 40ug
 Lane 3: RAJI Whole Cell Lysate at 40ug
 Lane 4: HL-60 Whole Cell Lysate at 40ug
 Lane 5: K562 Whole Cell Lysate at 40ug
 Lane 6: HEPG2 Whole Cell Lysate at 40ug
 Lane 7: Human Placenta Tissue Lysate at 50ug
 Lane 8: CEM Whole Cell Lysate at 40ug
 Predicted bind size: 86KD
 Observed bind size: 98KD



Anti- TFRC antibody, ABO11924, IHC(P)
 IHC(P): Human Placenta Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.