10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-TFRC Picoband Antibody

Catalog # ABO11924

Specification

Anti-TFRC Picoband Antibody - 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.

Anti-TFRC Picoband Antibody - 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 MW KDa

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.

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 r˚Constitution, 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.

Anti-TFRC Picoband Antibody - Protein Information

Name TFRC

Function
Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (PubMed:26214738). 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

Anti-TFRC Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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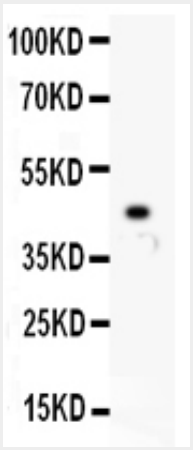
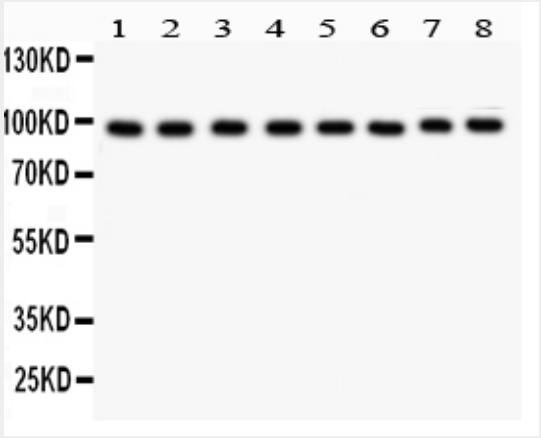
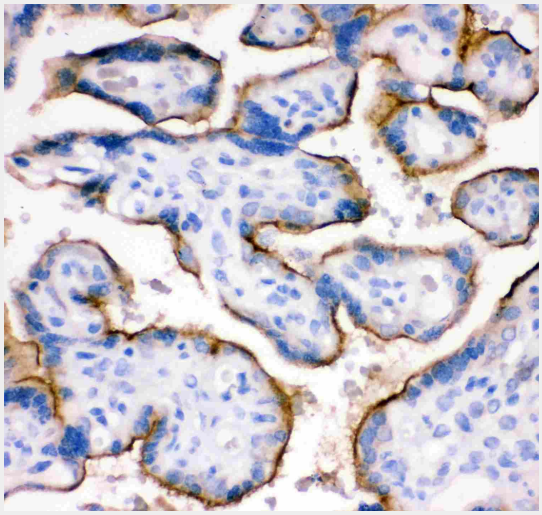
Anti-TFRC Picoband Antibody - Images



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 blottingAll lanes: Anti TRFC (ABO11924) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: JURAKT Whole Cell Lysate at 40ugLane 3: RAJI Whole Cell Lysate at 40ugLane 4: HL-60 Whole Cell Lysate at 40ugLane 5: K562 Whole Cell Lysate at 40ugLane 6: HEPG2 Whole Cell Lysate at 40ugLane 7: Human Placenta Tissue Lysate at 50ugLane 8: CEM Whole Cell Lysate at 40ugPredicted bind size: 86KDObserved bind size: 98KD



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

Anti-TFRC Picoband Antibody - 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.