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Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) Antibody
Mouse Monoclonal Antibody
Catalog # AH13532

Specification

Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) Antibody - Product Information

Application	**IF, FC, E**
Primary Accession	P02786
Other Accession	529618
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG2b, kappa**
Calculated MW	**84871**

Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) Antibody - Additional Information

Gene ID 7037

Other Names
Mtvr-1, p90, TFR1, TFRC transferrin receptor (p90 CD71), TRFR

Application Note
IF~~1:50~200<br \>FC~~1:10~50<br \>E~~N/A

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) 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).

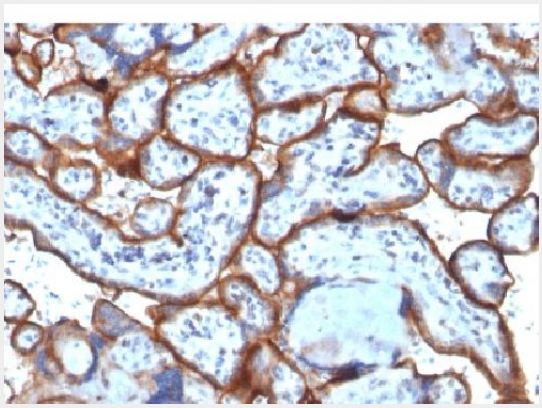
Cellular Location
Cell membrane; Single-pass type II membrane protein Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) 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

Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) Antibody - Images



Formalin-fixed, paraffin-embedded Human Placenta stained with CD71 Monoclonal Antibody (TFRC/1818).

Anti-CD71 / Transferrin Receptor (TFRC) (Extracellular Domain) Antibody - Background

It recognizes a ~90-95kDa protein which is identified as cell surface transferrin receptor (CD71), a disulfide-bonded homodimeric glycoprotein of 180-190kDa. This MAb is highly specific to CD71 and shows no cross-reaction with other related proteins. Ligand for transferrin receptor is the serum iron transport protein, transferrin. This receptor is broadly distributed in carcinomas, sarcomas, leukemias, and lymphomas. CD71/Transferrin receptor has been reported to be associated with cell proliferation in both normal and neoplastic tissues and useful in predicting clinical behavior or response to therapy in a number of malignancies including breast cancer.