

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

**Specification**

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

Application	,3,4,10,
Primary Accession	<a href="#">P02786</a>
Other Accession	<a href="#">529618</a>
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

**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](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/26642240" target="\_blank">26642240</a>). Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway (PubMed:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). 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:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). When dietary levels of stearate (C18:0) are high, TFRC stearylation inhibits activation of the JNK pathway and thus degradation of the mitofusin MFN2 (PubMed:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). Mediates uptake of NICOL1 into fibroblasts where it may regulate extracellular matrix production (By similarity).

#### Cellular Location

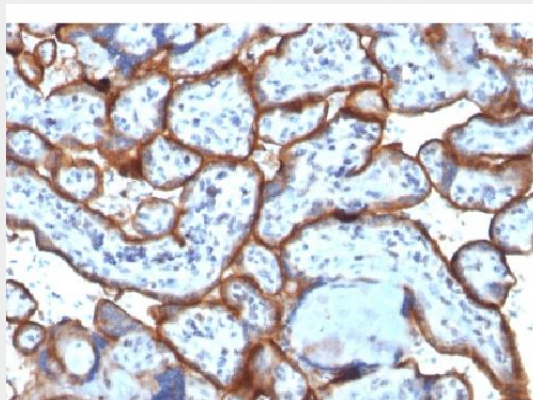
Cell membrane; Single-pass type II membrane protein Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

### 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 Cytometry](#)
- [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.