

**CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone TFRC/1149 ]**  
**Catalog # AH12387**

**Specification**

**CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide - Product Information**

Application	,1,3,4,
Primary Accession	<a href="#">P02786</a>
Other Accession	<a href="#">7037</a> , <a href="#">529618</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	85-95kDa (monomer); 190kDa (dimer) KDa

**CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide - 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

**Storage**

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

**Precautions**

CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide - Protein Information**

**Name** TFRC

**Function**

Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (PubMed:<a href="http://www.uniprot.org/citations/26214738" target="\_blank">26214738</a>). 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>).

#### **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

### **CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide - 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](#)

### **CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide - Images**

### **CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide - 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.

### **CD71 / Transferrin Receptor (TFRC) Antibody - With BSA and Azide - References**

Van de Rijna M, Geurts van Kessel AHM, Kroezen V, van Agthoven AJ, Verstijnen K, Terhorst C, Hilgers J: Cytogenet Cell Genet 1983;36:525-531. | Oudermans et al. Cancer, 1986; 58:1252. | K. Moolenaar et al. Cancer research 50,1102-1106, 1990