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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	P02786
Other Accession	7037, 529618
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: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

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 Cytomety
- 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