

Anti-Transferrin Receptor/TFRC Antibody (2Q331)

Product Details

Ig Type:	Human IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2Q331
Purification:	Affinity-chromatography

Applications

Verified Activity:	The Binding Activity of Human TFRC with Anti-TFRC Recombinant Antibody Activity: Measured by its binding ability in a functional ELISA. Immobilized Human TFRC at 2 µg/mL can bind Anti-TFRC recombinant antibody, the EC50 is 3.305-8.220 ng/mL.
Application:	ELISA

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human TFRC Protein
Antigen Species:	Human
Gene ID:	7037
Uniprot ID:	P02786
Synonyms:	TFR;TFRC;CD71;T9;p90;TfR1;TR;sTfR
Biology Area:	Cancer, Cardiovascular, Immunology, Metabolism, Stem cells

Research Background

Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes. 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. 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. Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway. 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. When dietary levels of stearate (C18:0) are high, TFRC stearoylation inhibits activation of the JNK pathway and thus degradation of the mitofusin MFN2. (Microbial infection) Acts as a receptor for new-world arenaviruses: Guanarito, Junin and Machupo virus.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481