

KD-Validated Anti-Transferrin Receptor Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2275

Product Information

Application	WB
Primary Accession	P02786
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	25GB4540
Calculated MW	84871
Gene Name	TFRC
Aliases	TFRC; Transferrin Receptor; P90; CD71; TFR1; Transferrin Receptor Protein 1; T9; TR; Transferrin Receptor (P90, CD71); CD71 Antigen; IMD46; TRFR; TfR1; Trfr; TFR; TfR
Immunogen	Recombinant protein of human TFRC

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

Protein Information

Name	TFRC
Function	Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (PubMed:26214738, PubMed:41772062). 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

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