

Anti-TfR / CD71 Reference Antibody (Zeleciment)

Catalog # APR11281

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	P02786
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1-Fab
Calculated MW	84871

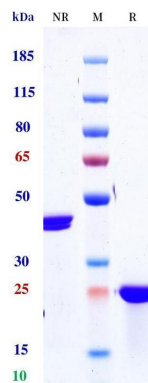
Additional Information

Target/Specificity	Transferrin receptor / CD71
Expression system	CHO

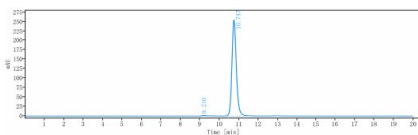
Protein Information

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

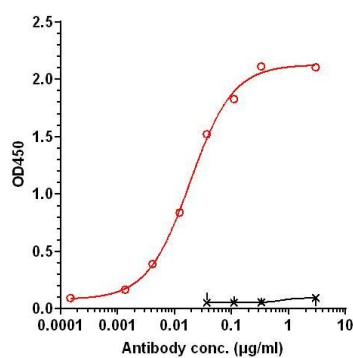
Images



Anti-TfR / CD71 Reference Antibody (Zeleciment) on SDS-PAGE under reducing (R) condition. The purity of the protein is greater than 95%.



The purity of Anti-TfR / CD71 Reference Antibody (Zeleciment) is 98.85%, determined by SEC-HPLC.



Immobilized Human Transferrin R/CD71 Protein, His Tag (MALS verified) at 2 µg/mL can bind Zeleciment, EC50= 0.1836 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.