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Anti-CD71 / Transferrin Receptor Antibody (clone 1E6)

Mouse Anti Human Monoclonal Antibody
Catalog # ALS17689

Product Information

Application	WB, IHC-P, E
Primary Accession	P02786
Predicted	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b,k
Clone Names	1E6
Calculated MW	84871
Concentration (mg/ml)	0.36 mg/ml

Additional Information

Gene ID	7037
Alias Symbol	TFRC
Other Names	TFRC, CD71, TFR1, TRFR, TFR, TR, CD71 antigen, p90, T9, Transferrin receptor, Transferrin receptor protein 1
Target/Specificity	Human Transferrin Receptor
Reconstitution & Storage	Protein A purified
Precautions	Anti-CD71 / Transferrin Receptor Antibody (clone 1E6) is for research use only and not for use in diagnostic or therapeutic procedures.

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

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