

# CD71 Polyclonal Antibody

Catalog # AP68958

## Product Information

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<b>Application</b>	WB, IHC-P, IF, ICC, E
<b>Primary Accession</b>	<a href="#">P02786</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	84871

## Additional Information

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<b>Gene ID</b>	7037
<b>Other Names</b>	TFRC; Transferrin receptor protein 1; TR; Tfr; Tfr1; Trfr; T9; p90; CD antigen CD71
<b>Dilution</b>	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
<b>Format</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
<b>Storage Conditions</b>	-20°C

## Protein Information

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<b>Name</b>	TFRC
<b>Function</b>	Cellular uptake of iron occurs via receptor-mediated endocytosis of ligand-occupied transferrin receptor into specialized endosomes (PubMed: <a href="#">26214738</a> ). 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: <a href="#">26642240</a> ). Acts as a lipid sensor that regulates mitochondrial fusion by regulating activation of the JNK pathway (PubMed: <a href="#">26214738</a> ). 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: <a href="#">26214738</a> ). When dietary levels of stearate (C18:0) are high, TFRC stearylolation 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

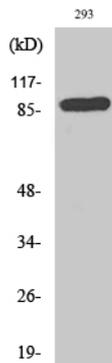
## Background

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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 (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](#)).

## Images

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Western Blot analysis of various cells using CD71  
Polyclonal Antibody diluted at 1 : 2000

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